

8th Grade Students & Parents,

Hopefully this letter finds everyone safe and ready for another couple weeks of non-traditional instruction. While it is still not an ideal educational setting, it is the safest one at the moment. We will continue to do our best to guide you all through the instructional part of non-traditional instruction. Just like in previous weeks, you have the CHOICE between doing the paper packet or doing your work through google classroom. As long as you complete one, you've accomplished your instructional goal for the week in our classes.

Please note that moving forward all materials you receive will cover two weeks worth of instruction. There will be no need to pick up materials on 4/27. On the following page, you will see a list of assignments/instructions for the weeks of 4/20 and 4/27.

Again, the assignments will be graded, so you need to complete the work with that in mind. We did our best to assign work that will keep your brain connected to the content we teach. Your teachers know that you may have questions, so please contact us. We look forward to hearing from you.

You will have access to ALL of your teachers throughout the school day. You can contact us each at the following emails or through google classroom.

sean.buynak@spencer.kyschools.us

stephanie.phelps@spencer.kyschools.us

nathan.frantz@spencer.kyschools.us

ike.hanson@spencer.kyschools.us

bethany.olson@spencer.kyschools.us

ronda.cox@spencer.kyschools.us

wes.jackson@spencer.kyschools.us

patricia.kennedy@spencer.kyschools.us

marissa.pollock@spencer.kyschools.us

brandon.johnson@spencer.kyschools.us

duane.hume@spencer.kyschools.us

brenna.murray@spencer.kyschools.us

michael.gross@spencer.kyschools.us

tracy.szanya@spencer.kyschools.us

miranda.foree@spencer.kyschools.us

pam.davis@spencer.kyschools.us

tyler.eldridge@spencer.kyschools.us

stacy.larue@spencer.kyschools.us

We look forward to seeing your smiling faces in a few weeks. Stay healthy!

Sincerely,

Your 8th Grade Teachers

Class Expectations for the Week of 4/20/20 - 5/1/20

Social Studies:

Complete the Civil War packet. Read the "Causes of the Civil War" -take notes of what is most important in the margins. Read "Major Battles & Events of the Civil War". Use the information from both readings to complete the social media handout & story graphic organizer. This assignment is also on google classroom for both Mr. Jackson & Mrs. Kennedy.

Math (Ms. Phelps classes):

- If you HAVE internet capabilities, complete the assignments on Google Classroom for April 20 - May 1. The assignments will cover VOLUME & SLOPE.
- If you do NOT have internet capability, complete the math questions in the packet for Ms. Phelps Classes. They are over VOLUME & SLOPE.

Math (Mr. Buynaks 6th period): Google Classroom Code: 5wnehrr

- If you have internet capabilities, complete the assignments on Google Classroom for April 20 - May 1. Google Classroom has the notes, examples, and videos to help with each lesson.
- If you do NOT have internet capability, complete the math questions in this week's packet for Buynak 6th Period.

Algebra: (1st, 2nd, and 4th Periods):

- If you have internet capabilities, complete the assignments on Google Classroom for April 20 - May 1. Google Classroom has the notes, examples, and videos to help with each lesson.
- If you do NOT have internet capability, complete the math questions in this week's packet for Buynak 1st, 2nd, and 4th Periods.
- Reminds will be sent daily containing the notes, examples, and videos to help with the lessons.
- Google Classroom Codes: 1st Period: 2vo64qw 2nd Period: ste7ffa 4th Period: kntv2fj

Language Arts:

Over the next 2 weeks, you should be finishing the book, reading chapters 14 through 23. The vocabulary list for this week is only over chapters 14-18; the last section of vocabulary will be completed along with a final project in May. So for these next 2 weeks, please finish reading the novel, complete the vocab for chapters 14-18 either online or using Frayer models (you can do this on notebook paper), and complete the 6 worksheets either online or on the attached pages.

Science:

Included in this week's packet is another ReadWorks article, you will need to read the article and then complete ALL the questions attached. I've included a sample of a student-group slideshow. Please look through it and respond to the questions they included. The presentation is much better online, as it includes a video and more pictures, but this was, perhaps, the best one to print off and share. We're also including material on weather and climate to read/review and a question set based on it.

ECE Students: Please email Ms. Davis/Mr. Eldridge for accommodations. They are happy to help.

5th Period/Reading:

Read your AR book 30 minutes daily! Choose one day each week to do the following:

*If you're reading a fiction book: Describe the characters using complete sentences. Illustrate the setting. Describe the plot. Illustrate the solution.

*If you're reading a non-fiction book answer the following questions: What is the author's purpose? What are the text features that are in this non-fiction text? Illustrate the main idea of the text.

*ONE BOOK ONE SCHOOL-Mrs. Gabbard has planned another option for AR. Starting on Monday 4/20 your ELA teachers will provide a link to the book The Unteachables by Gordon Korman in their google classrooms. Mrs.Gabbard has read the book aloud so you can follow along.

8th Grade Arts and Humanities Class Week 5 and Week 6:

Please look for the instructions below pertaining to your child's two arts and humanities classes. Once the student has completed their Arts and Humanities assignment for the week, they will need a parent/guardian signature.

Spanish (Mr. Gross) Week 5:

At least three 20-minute sessions on Edgenuity during the week. Check Google Classroom and email each time you log on. I will also be posting new Quizlet study sets each week. Going back over previous lessons, Quizlet, etc. to maintain vocabulary also counts toward the time requirement. *New: Join the class on Remind. Class code @683d7k*

Spanish (Mr. Gross) Week 6:

At least three 20-minute sessions on Edgenuity during the week. Check Google Classroom and email each time you log on. I will also be posting new Quizlet study sets each week. Going back over previous lessons, Quizlet, etc. to maintain vocabulary also counts toward the time requirement. *New: Join the class on Remind. Class code @683d7k*

P.E (Mr. Hume)Week 5 and Week 6:

Students should be doing each day at least 15-20 minutes of exercise that will get your heart rate up a workout range. 160 beats per minute. These can be done indoor or outdoor weather permitting. Example- Play basketball, ride a bike around the neighborhood, take the family dog for a brisk jog, play tag, or bump a volleyball with a family member. Indoor and outdoor work around the house can be an alternate if the work gets the student's heart rate up. Vary your activities to what you enjoy doing each week.

Here are some other activities for Indoor.

- Jumping Jacks. Count out 10 Jumping Jacks or as many as you can do!
- Scissor Jumps. Position one leg in front of the other. ...
- Touch Your Toes. Stretch up to the sky on tippy toes and then bend down to touch the ground. ...
- Push Ups
- Crunches Lay on floor knees bent, Raise your shoulder and upper back up of the floor.
- Mountain Climbers. Bend over and touch the floor with hands. Move your feet back and forth.
- Squats 10 squats arms out in front of you
- Leg Lifts. Lay on side and lift scissor lift legs. Do 10 lifts 3 reps.

New Link this week. Below is a link to CoronaVirus Daily workout sessions you can follow each day. Pick things you can do at home.

<http://kahperd.com/coronavirus-nti-resources/>

Playwriting/Film (Mrs. Murray) Week 5:

As a playwright, it is important to keep in mind how the audience is going to respond or react to your play. This week, choose a movie, tv show, or filmed play to answer the following questions (as an audience member).

1. How did you, as an audience member, classify the play's genre? (Is it a comedy, drama, horror, etc.) Why?
2. Who is this piece targeted toward? (Children, Teens, Adults, Families, etc) Why?
3. Do you think the play/show/movie could offend certain audience members? Why do you feel that way?
4. Overall, what was your final take of the movie? Did you enjoy it? Is there anything that could be changed to make it more appealing?

Playwriting/Film (Mrs. Murray) Week 6:

As a playwright, you need to know everything about a character. This makes the writing process easier for you, and (if written into the story) will make the actor's job easier as well. This week, we are going to put ourselves in the "shoes" of an actor. Please pick a character from a TV show, movie, play, book, etc. and answer the following questions about the character.

1. What is the character's name?
2. What were their largest successes and failures?
3. What did the character dream of doing with their life? Did they achieve this?
4. What was their first love? Was it a person, a hobby, animal, etc.? Why did you see this as their first love?

8th grade Advanced Drama (Mrs. Murray) Week 5:

Please choose a TV show, movie, play, etc. and design a set for this production. If the play has multiple sets, you only need to choose one to design. These can be hand drawn or designed on the computer. While you do not have to add color, it would be more appealing! Please label any areas of the set which you feel may need explanation and put the title of the production you have chosen at the top.

8th grade Advanced Drama (Mrs. Murray) Week 6:

Publicizing a production is very important to a show. If the public does not know about the show, they are not likely to attend. For the show of your choice, please design a poster to advertise your show. This can be simply drawn or can be done on a computer. Please make sure to include:

- Title
- Date(s) of the performance
- Who is presenting the performance (example: Spencer County Drama Department Presents)
- Ticket Cost
- Location of the performance
- Name of the Author/Playwright
- (Optional) Director's Name
- An Eye Catching Design. (This also includes color or at least shading)

8th Grade Computer Skills 4 Classes (Mrs. Foree) Week 5:

Log into typing.com and practice correct keyboarding skills for 20 minutes. Also remember that Tech Readiness and Career Prep is due by the end of the year. If you are unable to log into the Internet please complete the following written assignment. There have been many advancements in technology in the past decade. What do you think has been the most beneficial advancements with computers? Write a one page paper describing at least two advancements with computers.

8th Grade Computer Skills 4 Classes (Mrs. Foree) Week 6:

Log into typing.com and practice correct keyboarding skills for 20 minutes. Also remember that Tech Readiness and Career Prep is due by the end of the year. If you are unable to log into the Internet please complete the following written assignment. Choose between designing your own cell phone app or computer program based on something that you like or value. In a one page paper describe the app/program you would design, how it would be beneficial for others users, and how you would make money from others using the app/program.

8th Grade Computer Literacy Class (Mrs. Foree) Week 5:

Complete at least 20 minutes sessions on Edgenuity daily. Remember to let me know when you need your test unlock and I can also email you the next study guide. If you are unable to log into the Internet please do the following assignment for this week. There have been many advancements in technology in the past decade. What do you think has been the most beneficial advancements with computers? Write a one page paper describing at least two advancements with computers.

8th Grade Computer Literacy Class (Mrs. Foree) Week 6:

Complete at least 20 minutes sessions on Edgenuity daily. Remember to let me know when you need your test unlock and I can also email you the next study guide. If you are unable to log into the Internet please do the following assignment for this week. Choose between designing your own cell phone app or computer program based on something that you like or value. In a one page paper describe the app/program you would design, how it would be beneficial for others users, and how you would make money from others using the app/program.

Social and Emotional Learning (Mindfulness) (Ms. Pollock) Week 5:

Due to a mix up last week, please make sure you have done the questions below that were for Week 4 as well.

- #15: Have you ever had a wrong first impression on someone? Explain
- #16: What are some ways humans communicate?
- #17: How could I encourage people around me to do more kind things for one another?
- #18: Write one kind or thoughtful thing you can do today to make someone in your life feel valued.
- #19: What was the most important decision you have ever made? Explain your decision and how you made it.

Week 5 Questions: Continue the following daily journal questions.

- #20: When I need to make a decision, how can I make the best one available to me?
- #21: What decisions do you wish you could make on your own, but adults won't let you make those decisions?
- #22: What does it mean to put yourself in someone else's shoes?
- #23: Describe and label how you might feel in these different bullying situations.
 - 1.) You saw someone being bullied
 - 2.) You were being bullied
 - 3.) You bullied someone
- #24: What kind of day are you having and why?

Social and Emotional Learning (Mindfulness) (Ms. Pollock) Week 6:

Continue the following daily journal questions.

#25: If you won the lottery, what would you do?

#26: What magic power would you like to have? How would you use it? How would it make you feel?

#27: How would you like your life to be when you are older?

#28: Why do people deserve kindness?

Choir Week 5 and Week 6:

Practice 30 mins of music a day for the spring concert. The link below is of the arrangement from the song they received at school.

<https://www.youtube.com/watch?v=Fakq5m2XIZ4>

<https://www.youtube.com/watch?v=7-BX0-ghow>

8th Grade Band (Mr. Johnson) Week 5:

Assignment: : UPLOAD AN AUDIO FILE (.mp3 or .wav) OF YOU PLAYING #182 and send to my email.

brandon.johnson@spencer.kyschools.us

Google Classroom Code: k4rxwqh

8th Grade Band (Mr. Johnson) Week 6:

YOUR ASSIGNMENT IS TO MAKE AN AUDIO (.mp3 or .wav is preferred) RECORDING OF #168 AND EMAIL IT TO ME.

Google Classroom Code: k4rxwqh

General Music (Mr. Johnson) Week 5:

This week your assignment is to fire up the Google machine and research how musicians make their money and answer these questions:

1. Do all professional musicians make millions of dollars?
2. What is a royalty in the music industry?
3. What is a copyright?
4. What was the first musical recording?
5. What is merchandise to a musician?
6. Approximately how much money does a musician make off of one play on Spotify or YouTube or Pandora, etc?
7. Why do musicians tour the country and the world?
8. Is the radio REALLY free? How do you actually pay for the radio and how does the radio station pay for the songs they play? Hint: It's the same answer.

Please write in complete sentences. Google Classroom Codes: Jqs7wp5

General Music (Mr. Johnson) Week 6:

Over the past few weeks we've explored a little about Classical music and we've explored a little about how modern musicians make money. Let's combine the two ideas! How did musicians make money BEFORE the recording industry started in the early 20th century?

1. Where was music mainly performed in the 1500s, 1600s, 1700s, and 1800s? You can still hear it there today on Sundays.
2. Who paid the musicians? Remember there were no streaming services and most common people didn't have money for concerts.
3. What is religious music? Where can you hear it today?
4. What is secular music? Where can you hear it today?
5. Wolfgang Amadeus Mozart was a rock star in his day. He lived from 1756-1791. At the end of his life, was he rich or poor? Why?

Please write in complete sentences. Google Classroom Codes: jqs7wp5

Art Class (Ms. LaRue) Week 5:

Find items with textures that you can feel. Collect at least 10 different textures by laying a sheet piece of paper over the item and then gently rubbing the paper with either the side of your pencil lead or with the sides of unwrapped crayons. This makes an impression or record of the texture. After collecting the textures on paper, you will tear, rip or cut the texture rubbings to use for a collage. Choose two of the scenes below to make two separate collage artworks this week.

1. A rural landscape scene.
2. A meal at a table ready to eat.
3. An athlete in action.
4. An indoor scene showing furniture in the room.
5. Your favorite animal that's relaxing.

Art Class (Ms. LaRue) Week 6:

Use nature to create artworks. This week you will find leaves, grass blades, and flower petals to press and then make scenes with. Collect a variety of shapes and colors so that you have plenty to work with. Lay each item flat between a napkin or paper towel and then place inside the pages of a heavy book to flatten and press the leaves and flowers. Leave them at least 24 hours to dry as they flatten. Once pressed and dried use these items to arrange in a collage to make a scene. Choose two of the scenes below to make two separate nature artworks this week.

1. A face showing an emotion.
2. A car, truck or motor bike.
3. A name or message.
4. A dessert.
5. A bird or fish.

Advance Art Class (Ms. LaRue) Week 5:

Get out your favorite pair of shoes for observational drawing practice. You will create 3 different drawings this week using the same pair of shoes. For each drawing session pose or arrange the shoes differently. For at least one session use

a different angle of view to change the perspective. As you draw pay attention to the light source- Include highlights and the shadows cast by the shoes' form.

Advance Art Class (Ms. LaRue)Week 6:

Comic strip creations. This week you are going to experiment with making a series comic strip like in the weekly funny papers. Each strip needs at least 7 frames or boxes for completing the scenario and the entire strip should fit on one side of a sheet of note paper (or blank sketch paper). You will complete a total of 2 strips to complete your series. You will need to develop a main character that appears in both strips. Select from the scenarios listed below:

Telling a joke. Having a bad dream. Making a purchase. Cooking at home. Losing something important.

Arts and Humanities courses:

Please sign the statement below and return to school at the end of the week.

My student has performed their Arts and Humanities assignments for this school week 4/20-5/1

Print Student Name _____

Parent Signature _____

Print Parent Name _____

Or instead of returning this sheet fill out the google document link below for Week 5 and Week 6.

[https://docs.google.com/forms/d/e/1FAIpQLSd3uczmnYjzV1dOwECTv3xmcGb_z0yx5FCfCWEAP7ni231kw/viewform?usp=sf link](https://docs.google.com/forms/d/e/1FAIpQLSd3uczmnYjzV1dOwECTv3xmcGb_z0yx5FCfCWEAP7ni231kw/viewform?usp=sf_link)

Unit: Civil War

Lesson: Causes of the Civil War

Name _____



The American Civil War was fought between the North and the South.

The American Civil War began on April 12, 1861, and ended on June 2, 1865. The Civil War was the costliest war fought on US soil. Over 650,000 were killed, and the South was devastated. Like many major wars, there was not a single underlying cause of the Civil War. There were several factors that slowly created a division among the US states. Slavery is generally given as the main reason for the Civil War, but

there were other cultural, economical, and political differences that eventually led to the outbreak of fighting.

States' Rights

Among the differences between the northern states and the southern states was the view of states' rights. States' rights had been an issue since the end of the American Revolutionary War when the US won its independence from Great Britain in 1776.

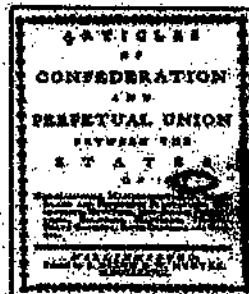
Following this war, the thirteen colonies formed the first US government under the Articles of Confederation, which became effective in 1781. The Articles of Confederation was a written document that established how the US government would function. These articles allowed each new state to remain sovereign, or independent, from the federal government and make their own decisions and laws. The federal government, or Congress, could make decisions about alliances, treaties, the military, and other national issues but could not interfere in the states' affairs. Once the colonies became states, though, some began to act in their own best interests which weren't always best for the new nation. The federal government was weak, and in 1787 representatives from 12 of the 13 states met to rewrite the articles.

This group of delegates is now referred to as the Founding Fathers. Some delegates liked how individual states had more power than the federal government. Other delegates, though, wanted the federal government to have more power than individual states. This struggle between the federal government and individual states over political power widened the divide that already existed within the nation. Most of the southern states wanted the states to retain the power, while most northern states wanted power to go to the federal government. After four months of meeting,

instead of rewriting the articles, the delegates wrote the Constitution. The Constitution created a stronger federal government. Many southern states felt that this new federal government would hold too much power and that the Constitution ignored states' rights to act independently. Delegates from southern states proposed nullification,



The US Constitution was ratified on Sept. 17, 1787, in Philadelphia, PA.



The Articles of Confederation gave greater political power to the states.

Notes

Unit: Civil War

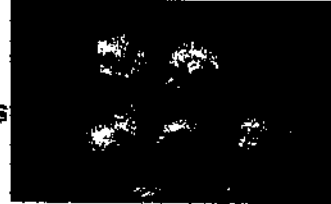
Lesson: Causes of the Civil War

Name _____

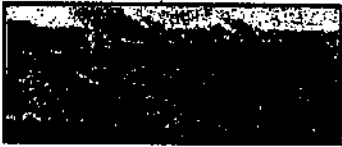
would allow states the right to rule federal acts unconstitutional. This would allow states to continue to act independently. However, the federal government denied nullification. The southern states felt that the federal government was taking away their rights and power, and, as a result, these states moved towards secession.

Slavery & the Economy

Another major issue that had been creating a division among the states was slavery. The economy of the south was driven by agriculture. The South relied heavily on slavery for labor to work in the fields. After Eli Whitney's invention of the cotton gin in 1793, cotton became one of the most



Cotton became the South's most profitable cash crop.



Industry was the driving economic force in the North.

profitable crops. Southern plantations began planting more cotton, and in turn the need for slavery grew. The northern economy was based less on agriculture and more on industry. The North did not have a need for slavery, and many northerners became increasingly against slavery.

These abolitionists began working towards ending slavery, while the South wanted to hold onto it. Abolitionists such as Harriet Tubman, Frederick Douglass, John Brown, and Harriet Beecher Stowe led efforts against slavery. Douglass escaped slavery and shared his experiences through powerful speeches. Stowe wrote an anti-slavery novel titled *Uncle Tom's Cabin* that was published in 1851. Both Douglass and Stowe shared the evils of slavery that few people actually knew. Anti-slavery sentiment began sweeping across the north, and northern states began to abolish slavery.



Frederick Douglass



Harriet Beecher Stowe

Some abolitionists, like Tubman, began helping enslaved people escape to the north via the Underground Railroad. The US Constitution declared that a fugitive in one state would be a fugitive in all states. Enslaved people who ran away were considered fugitives in the South. Therefore, the South believed they should still be considered fugitives in the North. However, this was not the case. Many northerners disagreed. The South felt as though the northern states were choosing which parts of the Constitution to honor, while they had to honor the entire document. The South became fearful their way of life would end when abolitionists continued to call for an end to slavery nationwide.



Harriet Tubman

Westward Expansion

During the first half of the 1800s, westward expansion added new states to the US. As each territory gained statehood, a decision had to be made to admit it as

Notes

Unit: Civil War

Lesson: Causes of the Civil War

Name: _____



The Tragic Prelude: John Brown leading the fighting during Bleeding Kansas

a slave state or a free state. Neither the North nor South wanted political power to shift to the opposing side, so each new state became a battleground between abolitionists and advocates of slavery. The US government tried to maintain a balance between the slave and free states. In 1854 the federal government passed the Kansas-Nebraska Act. This act stated that

the decision for a new territory to be either a free state or slave state would be decided through popular sovereignty. The citizens of the state and not the federal government would decide. Pro- and anti-slavery groups moved into Kansas to vote on its fate. Violence erupted in Kansas between the two sides, earning it the nickname Bleeding Kansas (Kansas entered as a free state in 1961). Instead of peacefully allowing citizens to decide, popular sovereignty pushed the country closer toward war.

Slavery

Not only was there physical fighting about whether or not to allow slavery, there were also legal battles. Dred Scott was an enslaved person who had lived with his owner in various free states before returning to Missouri, a slave state. Scott sued for his freedom, arguing that living in a free state entitled him to freedom. In March 1857, US Supreme Court Justice Roger B. Taney delivered the landmark decision in the *Scott v. Sanford* case. The Supreme Court ruled that an enslaved person was property and therefore had no rights; a free African-American was not a US citizen, and, as a result, could not sue the federal government; an enslaved person can't become free by traveling to free states; and Congress could not prohibit slavery from spreading into the western territories. The Supreme Court ruled that since an enslaved person was property, owners had a right to take slaves with them, even if the territory or state was free. *Scott v. Sanford* eliminated the hope of compromise on the issue of slavery. Abolitionists feared that slavery would begin to spread across the country. The divide within the country grew deeper.



Dred Scott

While Douglass and Stowe protested slavery peacefully, Brown had been actively involved in the fights during Bleeding Kansas. In 1857 Brown moved east, and began planning a rebellion. In October 1859, Brown led a raid on a federal armory in Harper's Ferry, Virginia. Brown wanted to seize the weapons and distribute them to slaves in hopes of starting armed slave uprisings. His raid failed, and he was executed for treason. Northerners saw him as a martyr, but Southerners began to militarize for future raids. Even though he was unsuccessful in starting a revolt, his raid intensified tensions.



Inside of the Engle House that Brown used as a fort during his raid.

Notes

Unit: Civil War

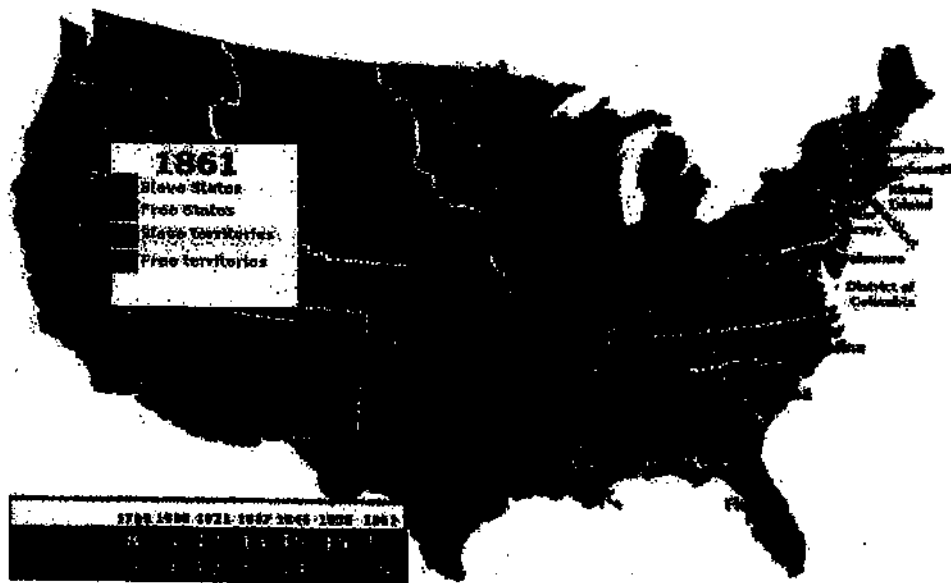
Lesson: Causes of the Civil War

Name _____


Lincoln Becomes President

Also occurring in the 1850s was the formation of a new political party that opposed slavery- the Republican Party. Abraham Lincoln was the Republican presidential candidate, and many southern states believed he was against slavery and the South. When he won the 1860 election despite not being on the ballot in many southern states, many southern states decided they no longer wanted to be a part of the US and felt they had every right to secede. On December 20, 1860, South Carolina was the first state to dissolve its contract with the US. Soon Mississippi, Florida, Alabama, Georgia, Louisiana, and Texas followed and formed the Confederate States of America on February 4, 1862. At the beginning of April, President Lincoln sent supplies to the Union-controlled Fort Sumter off the coast of Charleston, South Carolina. The Confederate forces blocked the supplies and demanded the fort be surrendered. On April 12, the confederate forces opened fire on the fort, and the Civil War began.

Notes


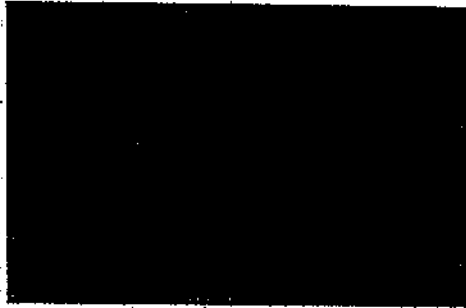


Major Battles & Events of the Civil War





The battle of Fort Sumter is usually recognized as the first battle of the American Civil War. It consisted of the bombardment of the unfinished sea fort by Confederate Forces, forcing the Union garrison to surrender. Following the battle, there was widespread support from both North and South for further military action. Lincoln's immediate call for 75,000 volunteers to suppress the rebellion resulted in an additional four southern states also declaring their secession and joining the Confederacy.

Known in the north as the Battle of Bull Run and in the South as the Battle of Manassas, this battle, fought on July 21 1861, in Virginia was the first major battle of the Civil War. It was a Confederate victory. And showed both sides that the war would last much longer than originally thought.




Fought on April 6-7 1862, the Battle of Shiloh was a defeat for Confederate forces in southwestern Tennessee. The results of the battle was the failure of Confederate forces to prevent Union forces from advancing into Mississippi River Valley.

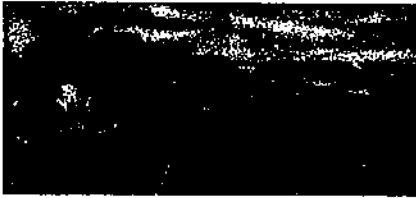
Fought on September 17 1862 in Maryland, the Battle of Antietam was the bloodiest single day battle fought in US history with a loss of 22,717. The battle, fought between the forces of Confederate Robert E. Lee and Union General George McClellan ended in the withdrawal of Lee's forces so it is counted as a Union victory but the refusal of McClellan to pursue and destroy Lee's army when he had the chance to do so are seen as a massive failure that allowed the war to continue.



Fought from April 20 - May 6 1863 the Battle of Chancellorsville was one of the major battle of the Civil War and was considered to be Robert E. Lee's "perfect battle" because his decisions ultimately led to a Confederate victory. The aftermath of the battle was mixed however for the Confederates as southern General Thomas "Stonewall" Jackson was accidentally killed by friendly fire.

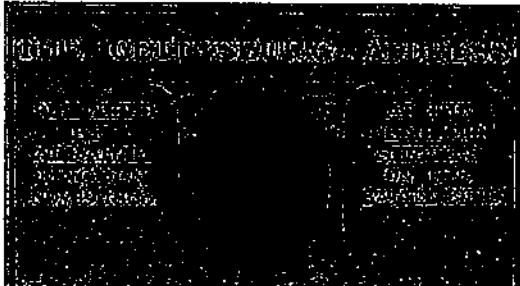
Made possible by the Union "victory" at Antietam and issued on January 1 1863, the Emancipation Proclamation emancipated (e.g. freed) all slaves in the states still in rebellion against the Federal government. It did not apply to slaves in border states that had remained loyal to the Union including MO, KY, MD, and DE. The order shifted the goal of war from simply reunifying the Union to eliminating slavery.





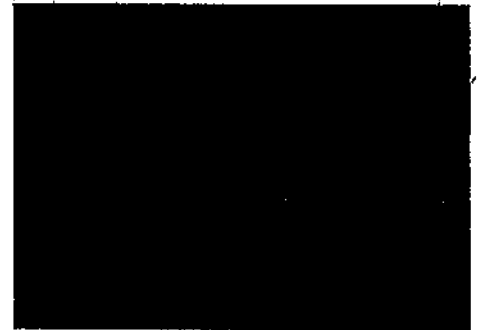
The Battle of Vicksburg, fought from May 18-July 4th 1863 was a major siege in the west. The capture of Vicksburg ultimately led to the Confederacy being split into two, cutting off the western Confederate states of Arkansas, Louisiana and Texas from the rest of the Confederacy.

The Battle of Gettysburg, fought from July 1-3 1863, was a Union victory that stopped Confederate General Robert E. Lee's invasion of the North is considered a turning point in the war. More than 50,000 men fell as casualties during the 3-day battle, making it the bloodiest battle of the American Civil War.



The Gettysburg Address, a speech given by President Lincoln on November 19 1863 when visiting the dedication of a Cemetery in Pennsylvania in the aftermath of the Battle of Gettysburg. It is considered to be one of the most famous and important speeches ever given in American history.

Fought from May 5-7th 1864, the Battle of the Wilderness was the first time that the armies of Union General Ulysses Grant and Confederate General Robert E. Lee met in battle with both of them in charge at the same time. The battle was ultimately inconclusive and was only the beginning of a long series of bloody battles.

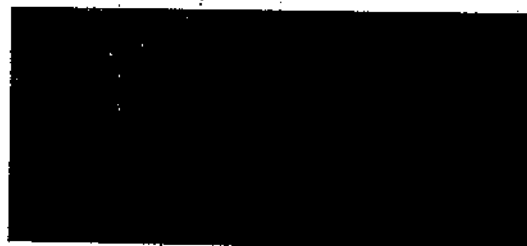


The capture and burning of Atlanta on Sept. 2nd 1864 marked the beginning of General William Sherman's March to the Sea. It also had a major political effect in the Presidential election of 1864. The capture of Atlanta gave Lincoln enough of a boost in the polls that he was able to be reelected, something that was in doubt before the fall of the city.

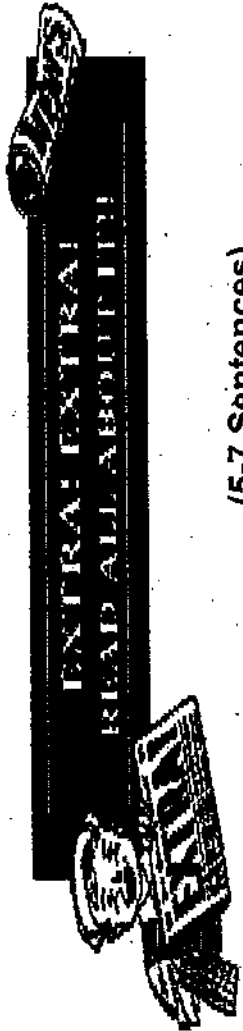
The March to the Sea was the campaign of total war waged by General William Sherman following the capture and burning of Atlanta. From November 15 to December 21st 1864 Sherman and his forces marched through Georgia, destroying everything in their path to disrupt the southern economy and transportation networks.




Fought on April 9 1865, the final battle and surrender at Appomattox Court House marked the end of the Civil War. The battle lasted only a few hours and the surrender documents were signed on April 9 and an official ceremony was held on April 12th, disbanding the Army of Northern Virginia that Lee had commanded. The effect of this was to end the war in Virginia and to trigger a wave of surrenders across remaining Confederate territory.



Name _____



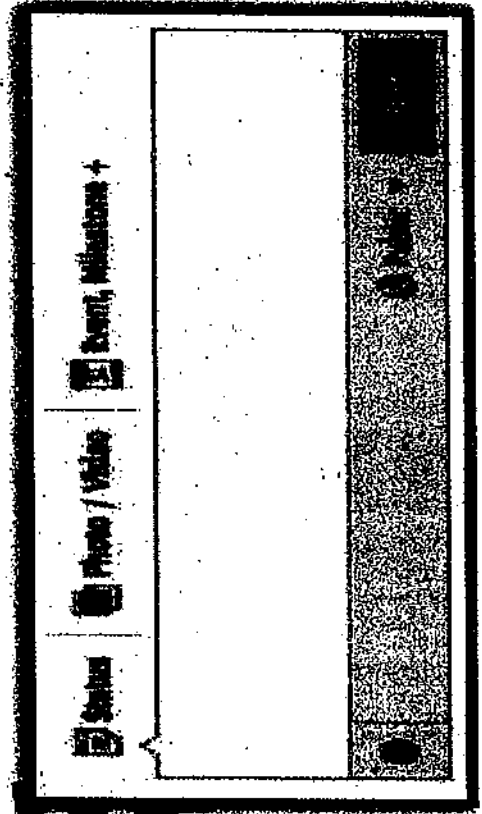
(5-7 Sentences)



Instagram

Tweet About... (use 2 hashtags)





Facebook status update interface showing options for Status, Photo/Video, Event, and Milestone.

Pick a person relevant to the battle and provide a status update

Important Event #1	
--------------------	--



Important Event #2	
--------------------	--



Important Event #3	
--------------------	--

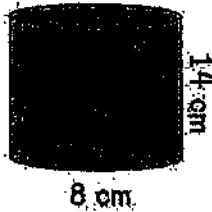


Setting	
---------	--



Characters	
------------	--

1. Mrs. Beasley is asking students to find the volume of the cylinder below using 3.14 for π . Which student wrote the correct expression for the value of B, the area of the base?



GERALD
 $(3.14)(8^2)$

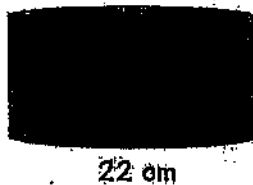
BRITTANY
 $(3.14)(4^2)$

2. Find the volume of the cylinder to the nearest tenth.



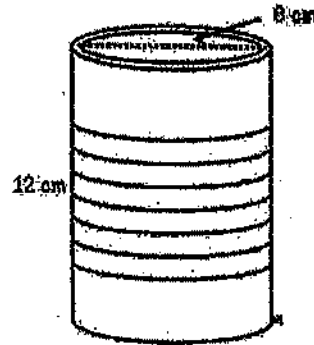
- A. 314.2 in³
- B. 1,885 in³
- C. 28,274.3 in³
- D. 9,424.8 in³

3. Find the volume of the cylinder in terms of π .



- A. $1,815\pi \text{ cm}^3$
- B. $5,702\pi \text{ cm}^3$
- C. $330\pi \text{ cm}^3$
- D. $990\pi \text{ cm}^3$

4. A tin can in the shape of the cylinder shown is filled with coconut oil. If coconut oil costs \$0.01 per cubic centimeter, what is the cost of filling the tin can with coconut oil? 1 point



- A. \$603.10
- B. \$12.06
- C. \$6.03
- D. \$1.92



5. The cylinder below has a volume of 2,512 cm³ and a height of 8 cm. What is the DIAMETER of the cylinder? Use 3.14 for π .



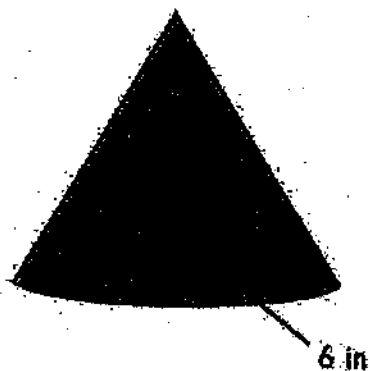
- A. 100 cm
- B. 20 cm
- C. 10 cm
- D. 50 cm

1. Which of the following is the correct expression to find the volume of the cone?



- A. $\frac{1}{2}(\pi)(16^2)(8)$
- B. $(\pi)(8^2)(16)$
- C. $\frac{1}{2}(\pi)(8^2)(16)$
- D. $\frac{1}{2}(\pi)(4^2)(16)$

2. Find the volume of the cone rounded to the nearest tenth.



- A. 113.1 cm^3
- B. 1,244.1 cm^3
- C. 414.7 cm^3
- D. 760.3 cm^3

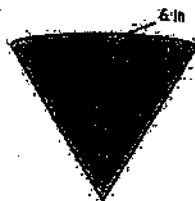
3. A cone has a height of 20 cm and a volume of 4,710 cm^3 . What is the area of the base of the cone?

- A. 755.45 in^2
- B. 706.5 in^2
- C. 890 in^2
- D. 12345 in^2

4. A frozen yogurt shop allows guests to fill a cone-shaped cup with frozen yogurt, and customers pay \$0.08 per cubic inch. If each cup has a diameter of 6 inches and a height of 5 inches, what would it cost to fill the cone to its full capacity? Use 3.14 for pi.

- A. \$3.77
- B. \$1.88
- C. \$11.80
- D. \$0.48

5. Cameron found the volume of the cone below, but when he double-checked his work, he got a different solution. Determine which solution best represents the volume of the cone.

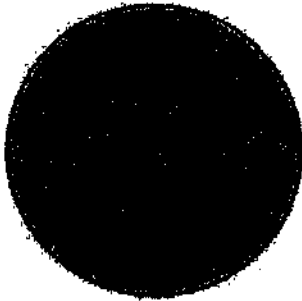


TRY #1
169.6 in^3

TRY #2
56.5 in^3

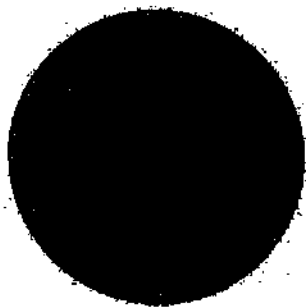
- A. Try #1
- B. Try #2

1. Angela needs to find the volume of the sphere shown below. Which formula should she use? 1 point



- A. $\frac{4}{3}(\pi)(17^3)$
- B. $\frac{4}{3}(\pi)(17^2)$
- C. $\frac{4}{3}(\pi)(8.5^3)$
- D. $\frac{4}{3}(\pi)(8.5^2)$

2. Find the volume of the sphere rounded to the nearest tenth.



- A. 150.8 in³
- B. 904.8 in³
- C. 678.6 in³
- D. 68.8 in³

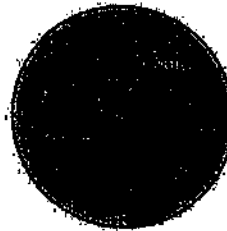
3. A sphere has a volume of 4,800π cubic inches. What is the radius of the sphere?

- A. 3.375 inches
- B. 15 inches
- C. 30 inches
- D. 225 inches

4. A large balloon in the shape of a sphere is being filled with helium. The balloon has a radius of 1 foot. Helium costs \$0.80 per cubic foot. What is the cost of filling the balloon with helium?

- A. \$4.19
- B. \$0.42
- C. \$0.52
- D. \$3.35

5. Amelia and Roger both found the volume of the sphere below. Determine which student correctly determined the volume of the sphere.



AMELIA
113.10 cm³

ROGER
14.14 cm³

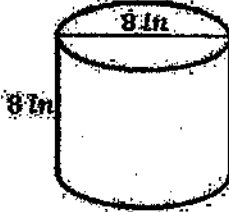


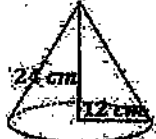


- A. Amelia
- B. Roger

{Watch MATHANTICS video posted today for extra help.}

▲ BONUS ALERT! (YOU DON'T HAVE TO DO #8 OR #10) ▲

Name: _____

VOLUME OF CYLINDERS, CONES, & SPHERES Quiz

<p>1 Find the volume of the cylinder below. Leave your answer in terms of π.</p>  <p> (A) $84\pi \text{ in}^3$ (B) $512\pi \text{ in}^3$ (C) $401.9\pi \text{ in}^3$ (D) $128\pi \text{ in}^3$ </p>	<p>2 Find the volume of the cone below. Leave your answer in terms of π.</p>  <p> (A) $18\pi \text{ m}^3$ (B) $56.5\pi \text{ m}^3$ (C) $54\pi \text{ m}^3$ (D) $27\pi \text{ m}^3$ </p>
<p>3 Find the volume of the sphere below. Leave your answer in terms of π.</p>  <p> (A) $3,052\pi \text{ cm}^3$ (B) $108\pi \text{ cm}^3$ (C) $972\pi \text{ cm}^3$ (D) $339\pi \text{ cm}^3$ </p>	<p>4 A cylindrical shaped swimming pool has a diameter of 30 feet and a water height of 4.5 feet. How many cubic feet of water is contained in the pool? Use 3.14 for π. Round your answer to the nearest cubic foot.</p> <p> (A) 3,179 ft^3 (B) 954 ft^3 (C) 1,908 ft^3 (D) 1,013 ft^3 </p>
<p>5 Kay is using cone-shaped party hats of popcorn holds. The party hats have a diameter of 10 inches and a height of 9 inches. How many cubic inches of popcorn will they hold? Use 3.14 for π. Round your answer to the nearest cubic inch.</p> <p> (A) 942 in^3 (B) 236 in^3 (C) 707 in^3 (D) 2,826 in^3 </p>	<p>6 A sphere-shaped beach ball is 16 inches in diameter. How many cubic inches of air will the ball hold when it is fully inflated? Use 3.14 for π. Round your answer to the nearest cubic inch.</p> <p> (A) 683 in^3 (B) 2,144 in^3 (C) 5,461 in^3 (D) 17,149 in^3 </p>
<p>7 How much more space is available in the sphere than in the cone (shown with dimensions below)? Use 3.14 for π. Round your answer to the nearest 10^3.</p>   <p> (A) 10,851.8 cm^3 (B) 3,014.4 cm^3 (C) 7,234.6 cm^3 (D) 3,617.3 cm^3 </p>	<p>8 A water cooler can hold approximately 6,104 in^3 of water. If a cylindrical cup measures 3 inches in diameter and will be filled to a height of 3 inches, how many cups of water will be able to be filled from one water cooler? Use 3.14 for π.</p> <p> (A) 21 cups (B) 287 cups (C) 71 cups (D) 237 cups </p>
<p>9 If a cylinder, cone, and sphere all have a radius of 10 units and a height of 20 units, which shape has the greatest volume?</p> <p> (A) Cylinder (B) Cone (C) Sphere (D) The shapes would have equal volumes. </p>	<p>10 Using the cylinder below, which change would create the greatest volume?</p>  <p> (A) Doubling the radius. (B) Doubling the height. (C) Either change will create the same adjusted volume. (D) Neither change will create a greater volume than the original figure. </p>

Variables on Both Sides

Date _____

Period _____

Solve each equation.

1) $2k + 2k = 6k - 8$

- A) $\{-4\}$
B) $\{4\}$
C) $\{-16\}$
D) $\{\text{All real numbers.}\}$

3) $-2 - 7x = 3 - 8x$

- A) $\{5\}$ B) $\{6\}$
C) $\{10\}$ D) $\{-13\}$

5) $-3 - 7a = 1 - 8a$

- A) $\{5\}$ B) $\{16\}$
C) $\{4\}$ D) $\{-2\}$

7) $m - 4 = 8 - 3m$

- A) $\{1\}$ B) $\{3\}$
C) $\{-8\}$ D) $\{-4\}$

9) $n - 4 = -1 - 6n + 4n$

- A) $\{11\}$ B) $\{1\}$
C) $\{15\}$ D) $\{-11\}$

2) $3 + 5x = 5 + x + 4 + 2$

- A) $\{\text{All real numbers.}\}$
B) $\{2\}$
C) $\{14\}$
D) $\{-6\}$

4) $1 + 5n = 13 + 4n + 3n$

- A) No solution. B) $\{-6\}$
C) $\{2\}$ D) $\{15\}$

6) $-2k + 7k = -2k$

- A) $\{6\}$ B) $\{7\}$
C) $\{0\}$ D) $\{9\}$

8) $4 + 5v = 1 + 3v + 5v - 15$

- A) $\{6\}$ B) $\{11\}$
C) No solution. D) $\{0\}$

10) $8n - 3n - 6 = n + 6$

- A) No solution. B) $\{6\}$
C) $\{-3\}$ D) $\{3\}$

Variables on Both Sides with Distributive

Date _____ Period _____

Solve each equation.

1) $-28 + 6x = 4(6x + 2)$

- A) $\{-15\}$ B) $\{-2\}$
C) $\{11\}$ D) $\{-14\}$

2) $-11 + 3x = 4 - 5(1 - x)$

- A) $\{14\}$ B) $\{-3\}$
C) $\{-5\}$ D) $\{16\}$

3) $8 - x = 7(x - 8) + 8$

- A) { All real numbers. }
B) $\{14\}$
C) No solution.
D) $\{7\}$

4) $-5n - 6(1 + 6n) = -8n - 6$

- A) $\{-9\}$
B) $\{-6\}$
C) $\{0\}$
D) { All real numbers. }

5) $1 + 3(n - 6) = -13 + 7n$

- A) $\{1\}$
B) $\{-1\}$
C) $\{-16\}$
D) { All real numbers. }

6) $-7(n + 5) + 5(2n - 7) = -6n + 4n$

- A) $\{-16\}$ B) $\{-14\}$
C) $\{14\}$ D) $\{-8\}$

7) $6x - 3(4 - 8x) = -8(-4 - x)$

- A) $\{16\}$ B) $\{-9\}$
C) $\{-16\}$ D) $\{2\}$

8) $8p - 4(3 + 2p) = 2p - 3(4 + 7p)$

- A) $\{-1\}$ B) $\{0\}$
C) $\{3\}$ D) $\{-8\}$

9) $-5(8 + 2a) + 3a = -3(a - 8)$

- A) $\{10\}$ B) No solution.
C) $\{-16\}$ D) $\{-15\}$

10) $-8b + 5(1 - 3b) = -2(5b + 6) + 4b$

- A) No solution. B) $\{-13\}$
C) $\{-12\}$ D) $\{1\}$

Distance Formula - Two Points

Date _____

Period _____

Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

1) $(-3, 8), (-1, -8)$

- A) 4.2 B) 4
C) 16.1 D) 4.5

2) $(-6, 6), (0, -6)$

- A) 6 B) 4.2
C) 13.4 D) 11

3) $(-8, 1), (-1, -7)$

- A) 3.9 B) 6.4
C) 10.6 D) 10.8

4) $(2, -6), (-3, -5)$

- A) 5.1 B) 3.2
C) 2.4 D) 11

5) $(6, -1), (-2, -3)$

- A) 3.2 B) 8.2
C) 2.8 D) 13.2

6) $(7, 7), (4, -8)$

- A) 4.2 B) 3.5
C) 15.3 D) 11

7) $(-3, -8), (5, 5)$

- A) 4.6 B) 3.6
C) 2.2 D) 15.3

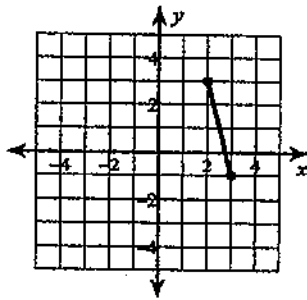
8) $(4, 7), (7, -8)$

- A) 9.1 B) 4.2
C) 15.3 D) 11

Distance Formula - Coordinate Plane

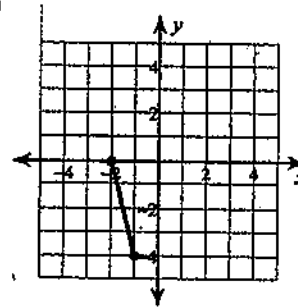
Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

1)



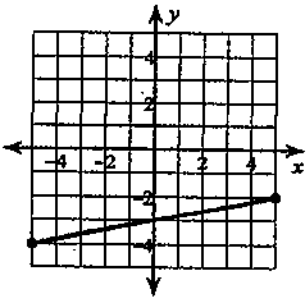
- A) 5.4 B) 4.6
- C) 4.1 D) 2.2

2)



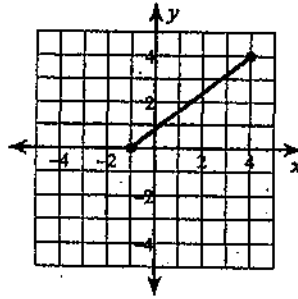
- A) 2.6 B) 2.2
- C) 4.1 D) 5

3)



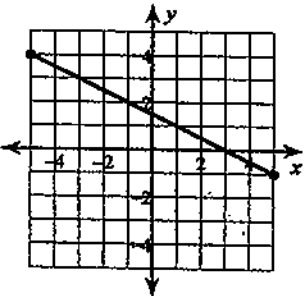
- A) 6 B) 3.5
- C) 2.8 D) 10.2

4)



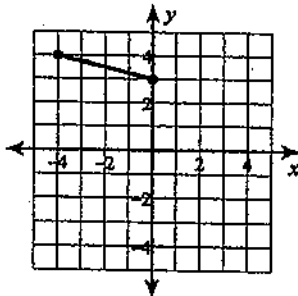
- A) 5 B) 3
- C) 1 D) 6.4

5)



- A) 11.2 B) 5.8
- C) 6.7 D) 3.9

6)



- A) 4.1 B) 3.3
- C) 2.2 D) 8.1

Dilations

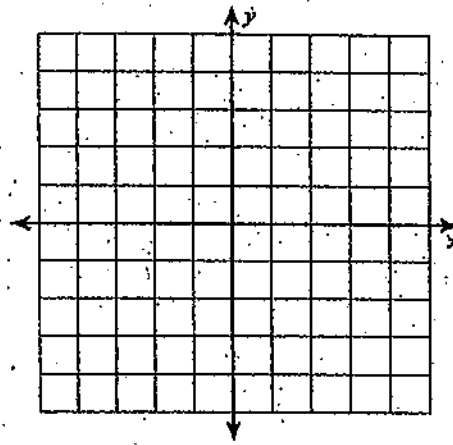
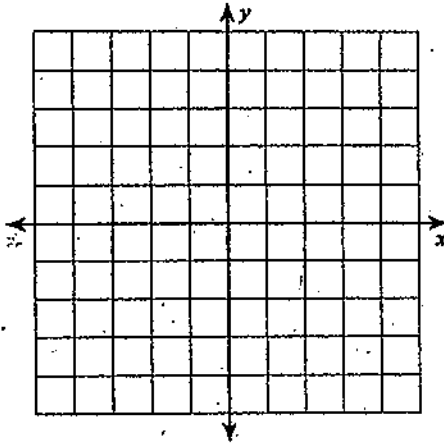
Date _____

Period _____

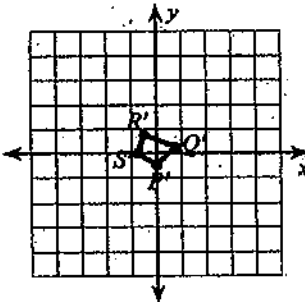
Graph the image of the figure using the transformation given.

- 1) dilation of 1.5 about the origin
 $S(-3, 0)$, $R(-2, 3)$, $Q(3, 1)$, $P(0, -2)$

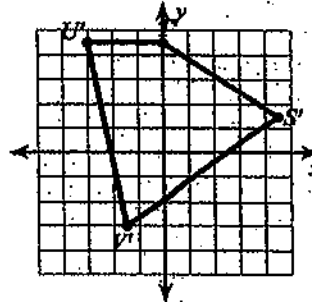
- 2) dilation of 1.5 about the origin
 $V(-1, -2)$, $U(-2, 3)$, $T(0, 3)$, $S(3, 1)$



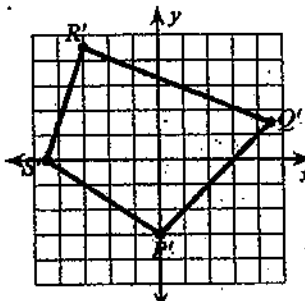
A)



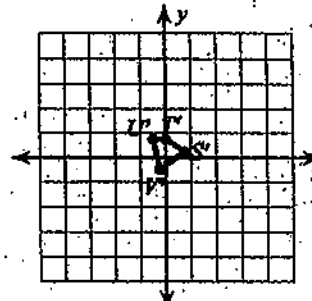
A)



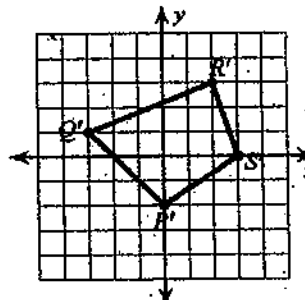
B)



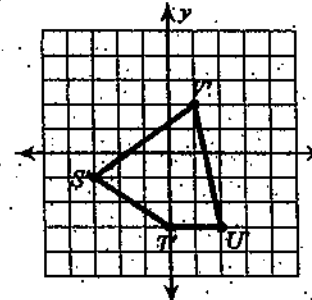
B)



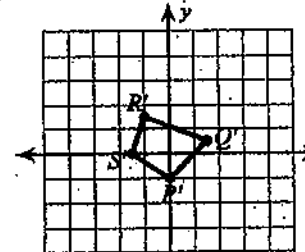
C)



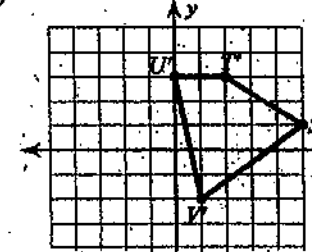
C)



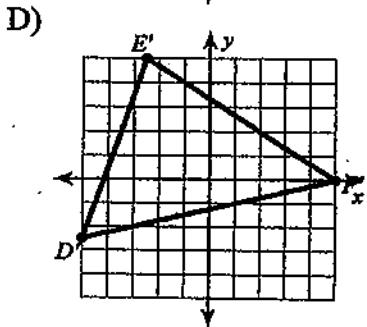
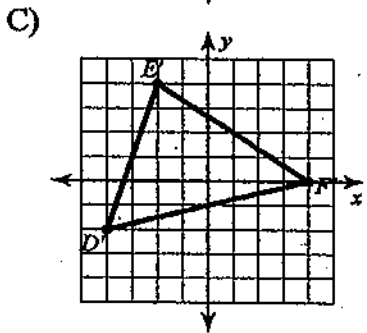
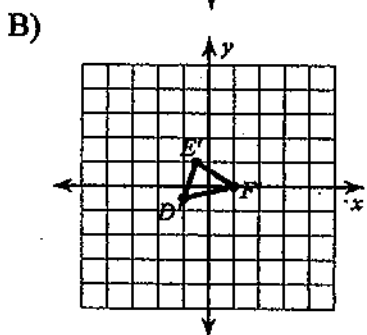
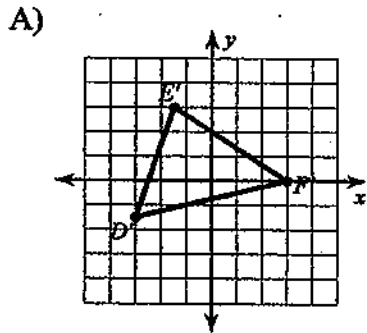
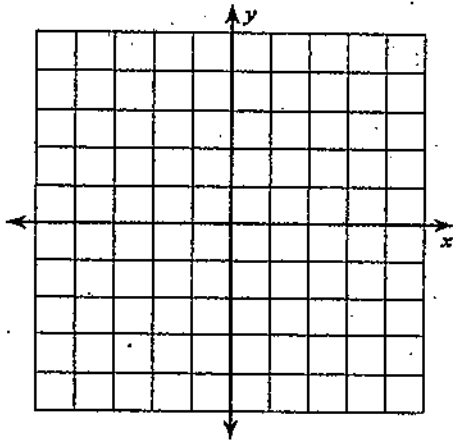
D)



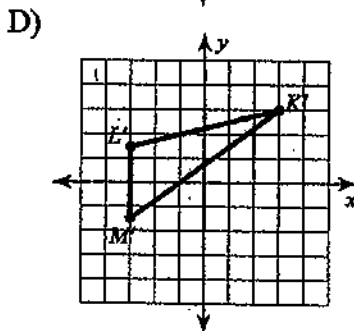
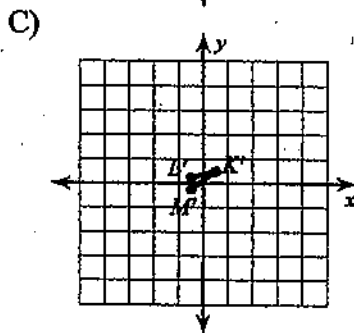
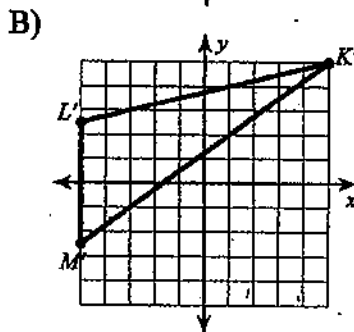
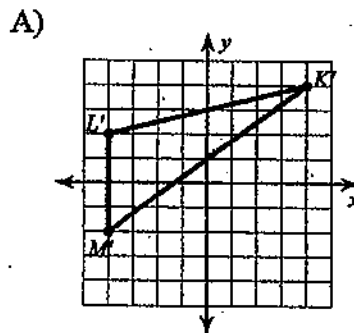
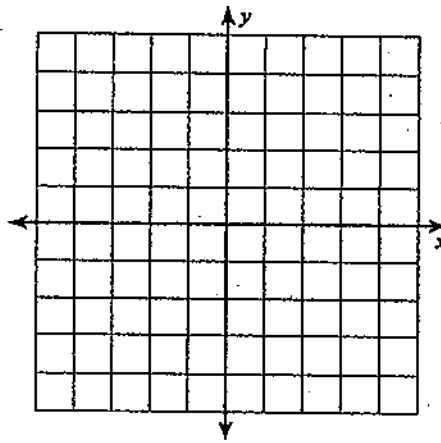
D)



3) dilation of 2.5 about the origin
 $D(-2, -1), E(-1, 2), F(2, 0)$



4) dilation of 2 about the origin
 $M(-2, -1), L(-2, 1), K(2, 2)$



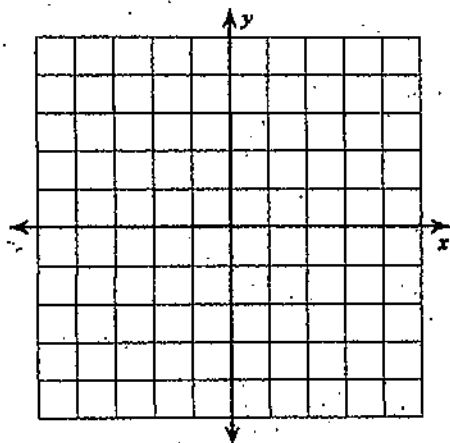
Reflections

Date _____

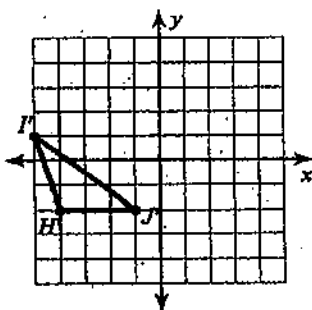
Period _____

Graph the image of the figure using the transformation given.

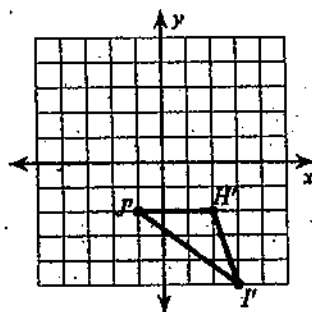
- 1) reflection across the y-axis
 $H(-2, 2), I(-3, 5), J(1, 2)$



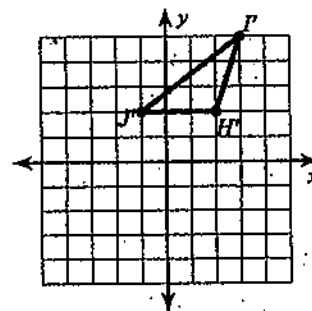
A)



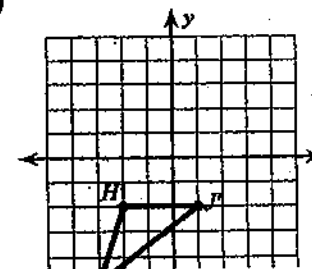
B)



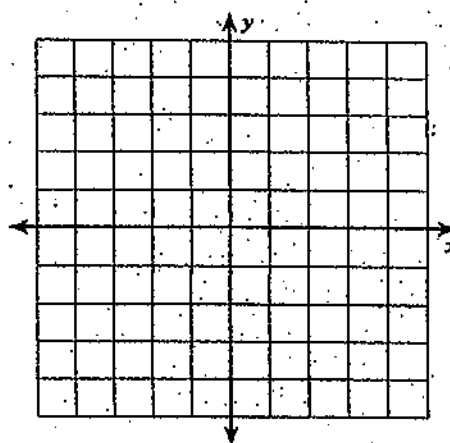
C)



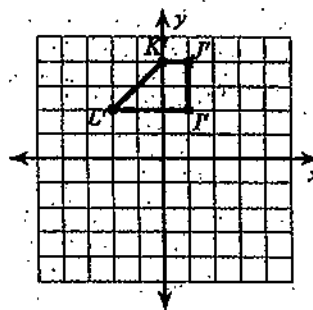
D)



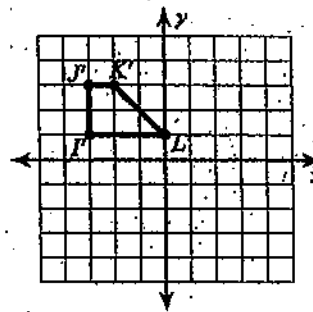
- 2) reflection across the x-axis
 $L(0, 1), K(2, 3), J(3, 3), I(3, 1)$



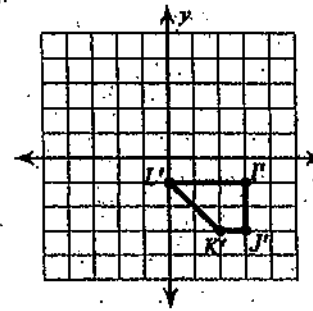
A)



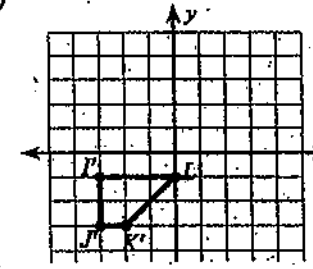
B)



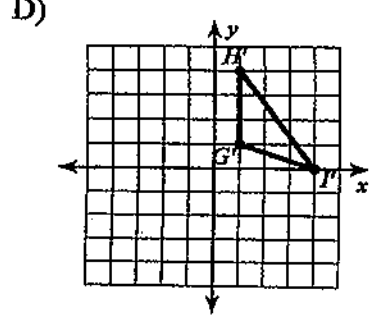
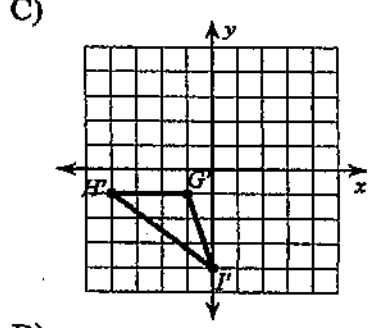
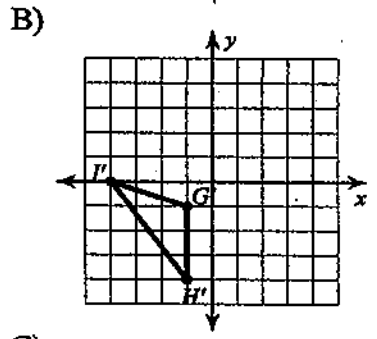
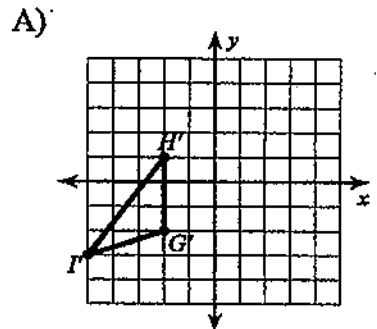
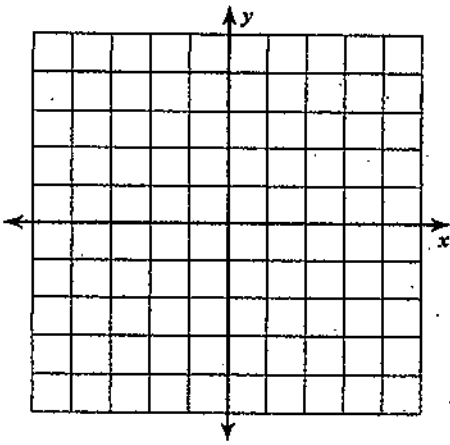
C)



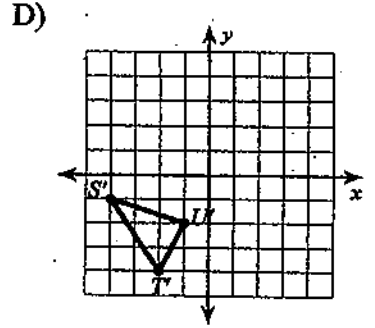
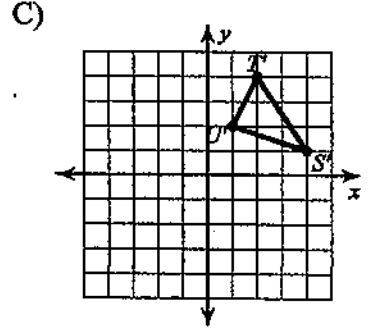
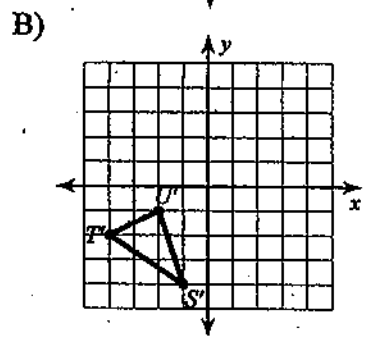
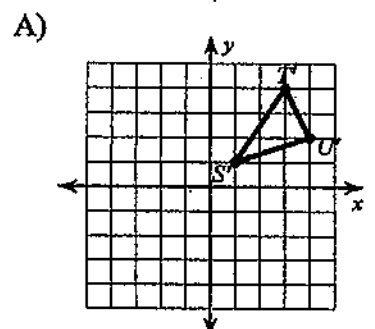
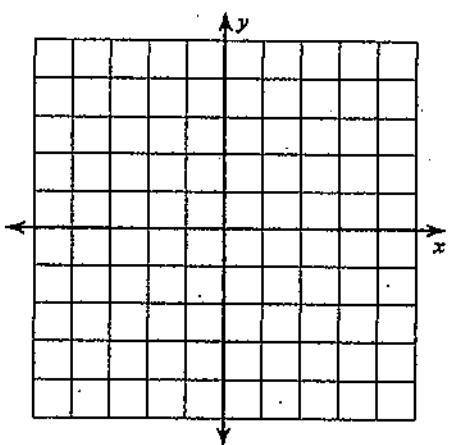
D)



3) reflection across the y-axis
 $I(-4, 0), H(-1, 4), G(-1, 1)$



4) reflection across the x-axis
 $S(-4, 1), T(-2, 4), U(-1, 2)$



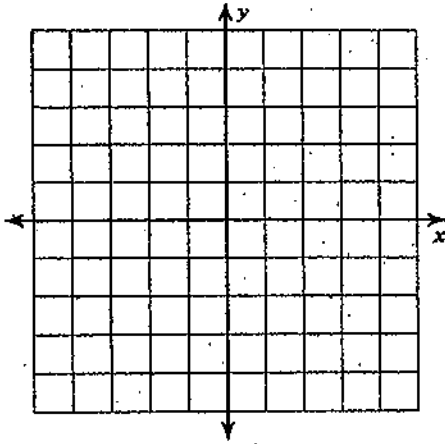
Translations

Date _____

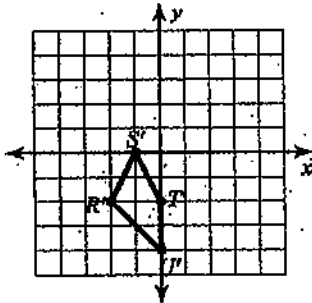
Period _____

Graph the image of the figure using the transformation given.

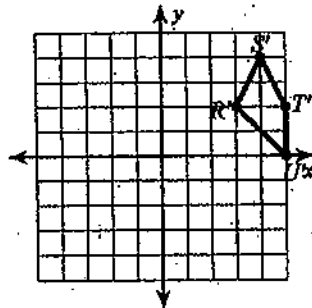
- 1) translation: 6 units right and 1 unit down
 $R(-3, -1), S(-2, 1), T(-1, -1), U(-1, -3)$



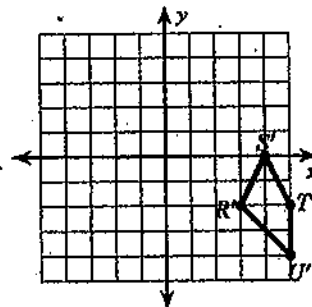
A)



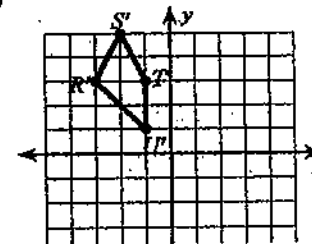
B)



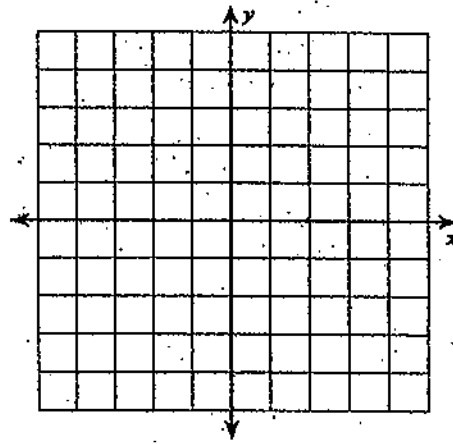
C)



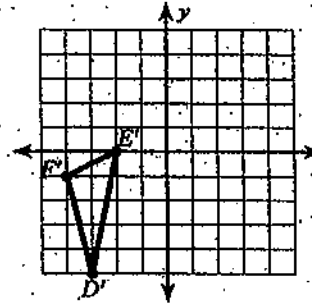
D)



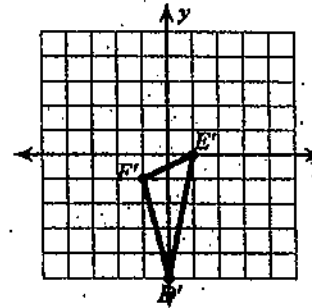
- 2) translation: 2 units right and 1 unit down
 $F(-3, 0), E(-1, 1), D(-2, -4)$



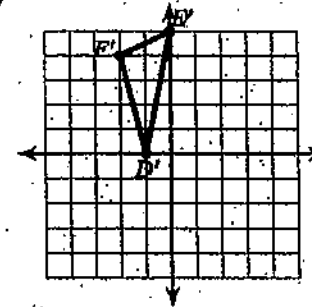
A)



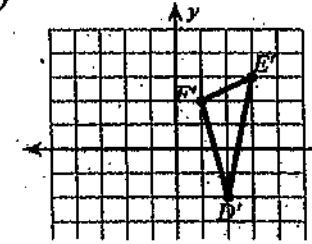
B)



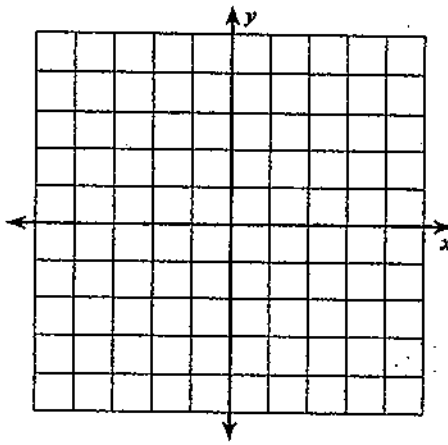
C)



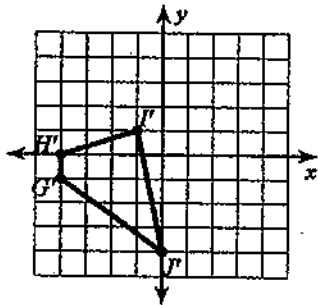
D)



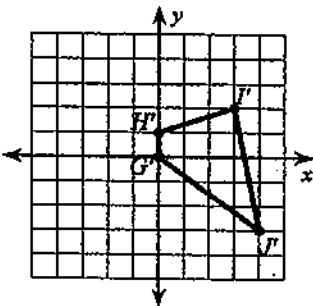
3) translation: 1 unit left and 1 unit up
 $G(-1, 1), H(-1, 2), I(2, 3), J(3, -2)$



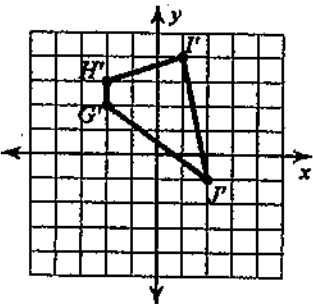
A)



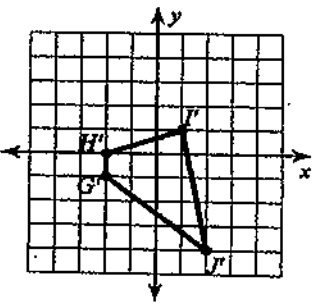
B)



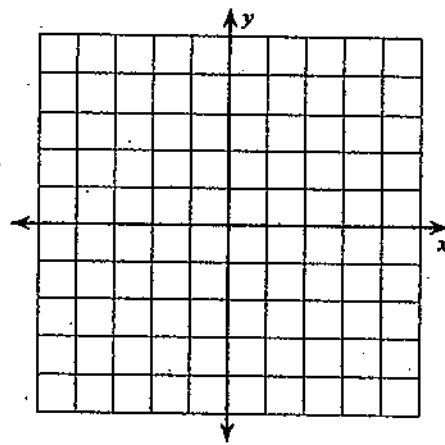
C)



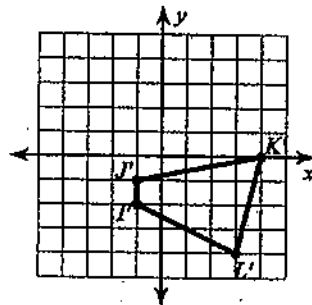
D)



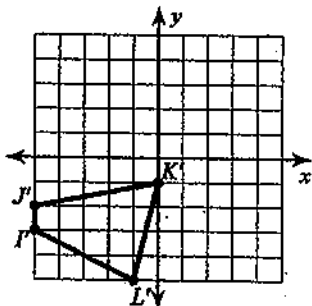
4) translation: 4 units left
 $I(-1, -3), J(-1, -2), K(4, -1), L(3, -5)$



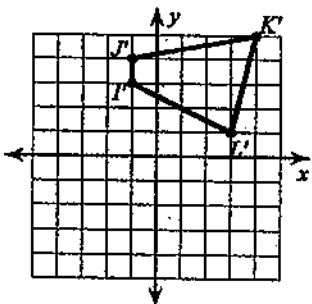
A)



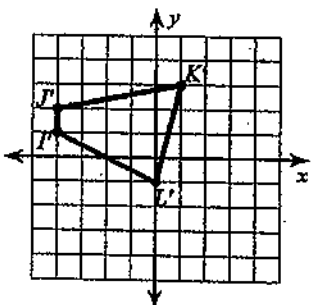
B)



C)



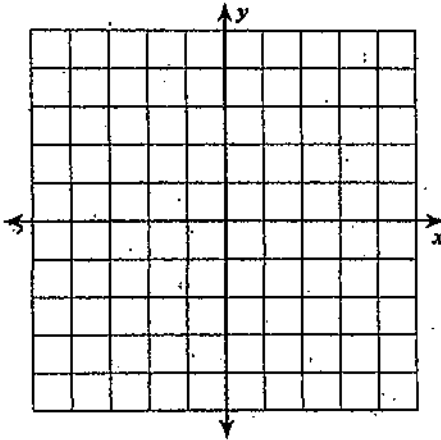
D)



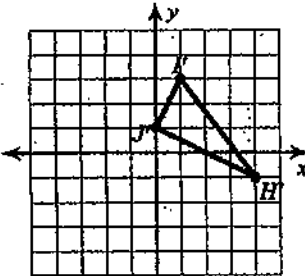
Rotations - 90 Clockwise

Graph the image of the figure using the transformation given.

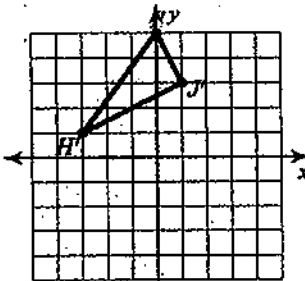
- 1) rotation 90° clockwise about the origin
 $J(1, 3)$, $I(2, 5)$, $H(5, 1)$



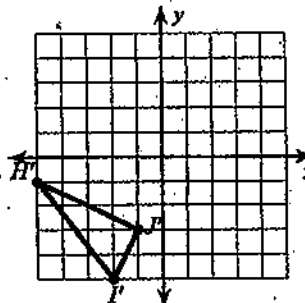
A)



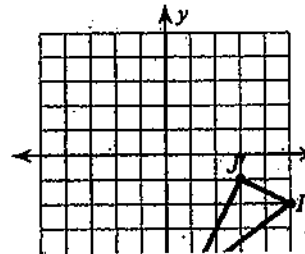
B)



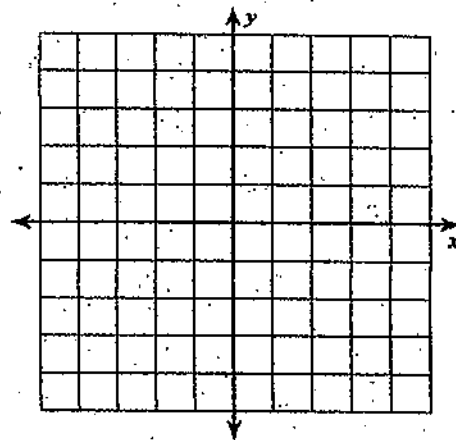
C)



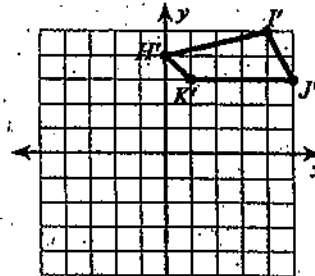
D)



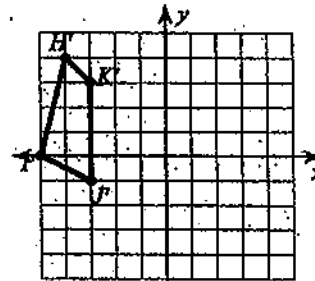
- 2) rotation 90° clockwise about the origin
 $H(-4, 0)$, $I(-5, 4)$, $J(-3, 5)$, $K(-3, 1)$



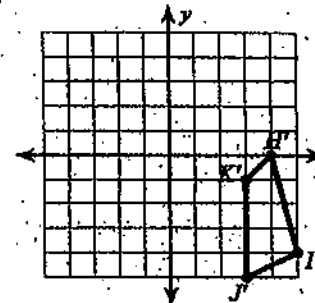
A)



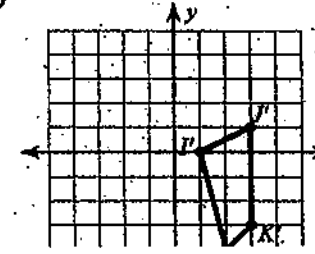
B)



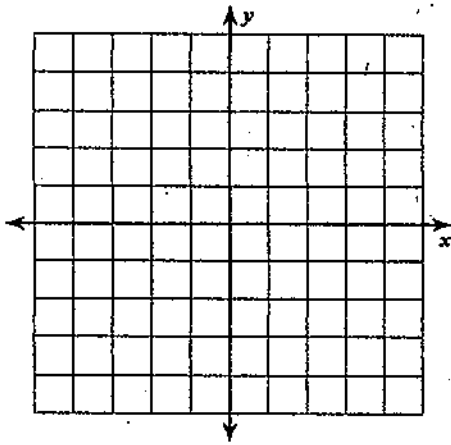
C)



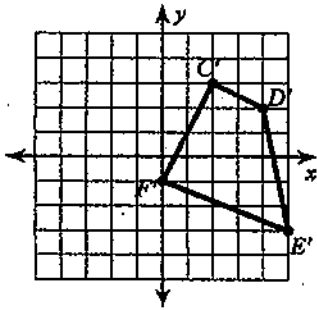
D)



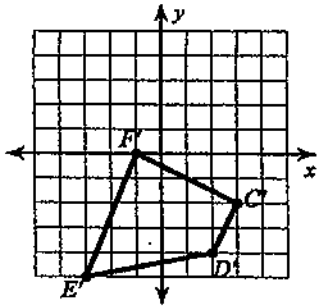
3) rotation 90° clockwise about the origin
 $C(-3, 2), D(-2, 4), E(3, 5), F(1, 0)$



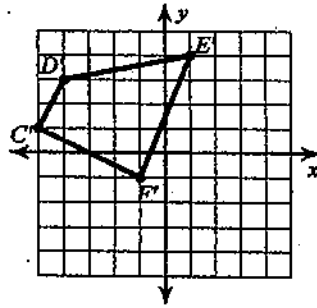
A)



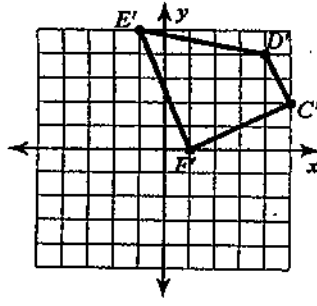
B)



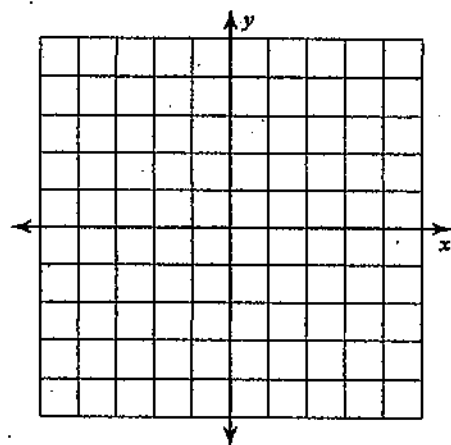
C)



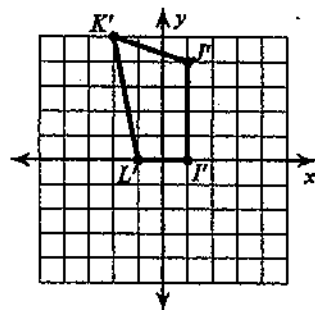
D)



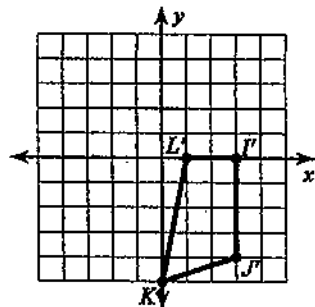
4) rotation 90° clockwise about the origin
 $I(-3, 0), J(-3, 4), K(0, 5), L(-1, 0)$



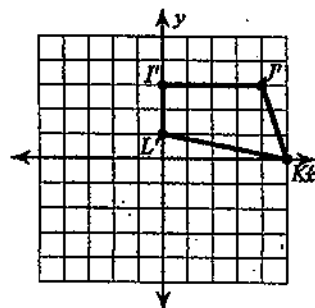
A)



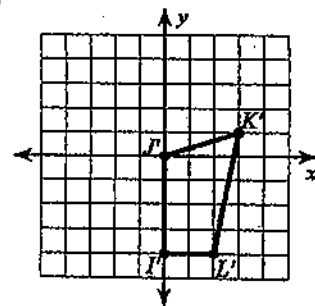
B)



C)



D)

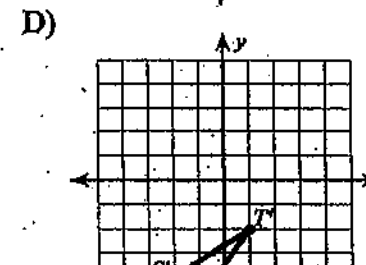
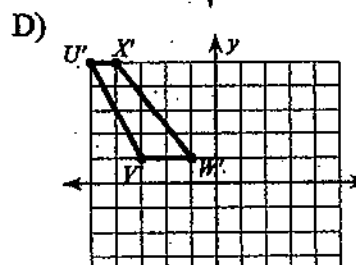
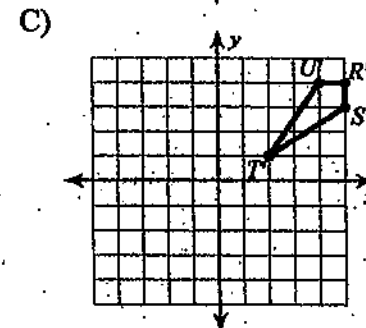
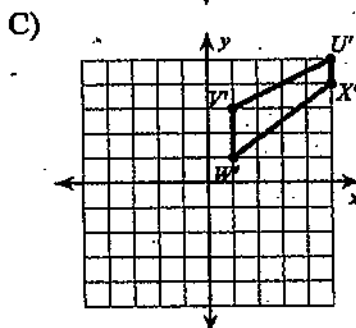
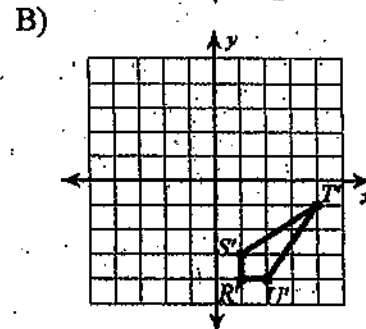
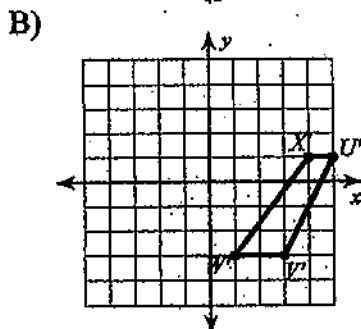
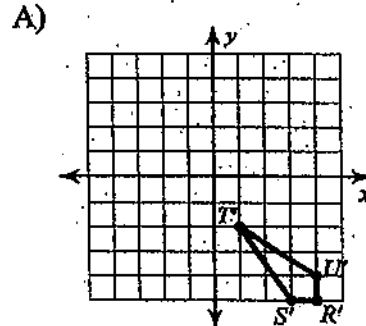
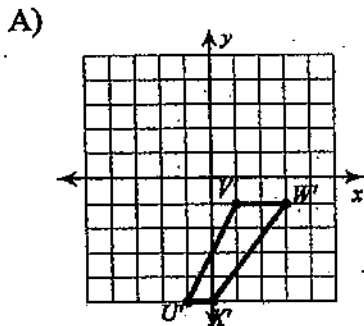
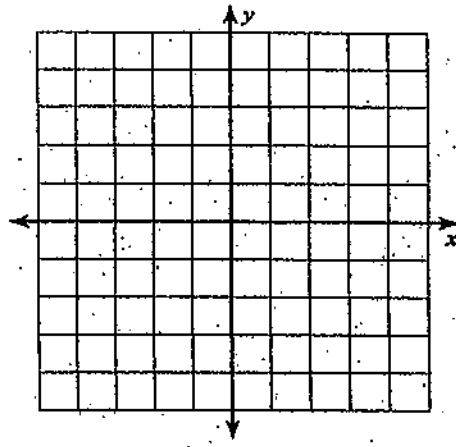
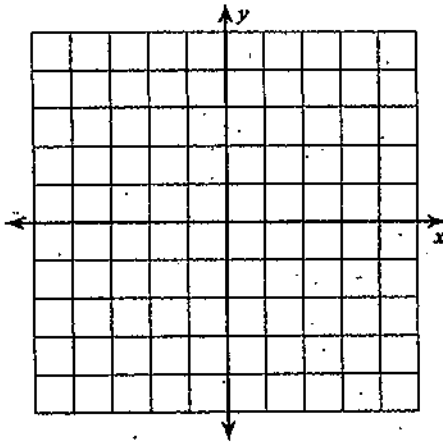


Rotations - 90 Counterclockwise

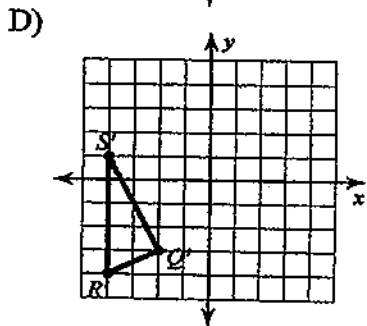
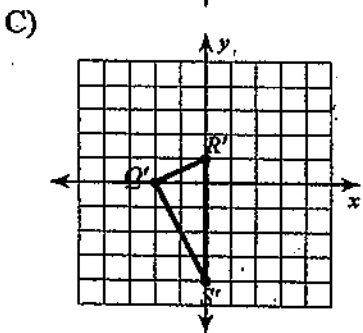
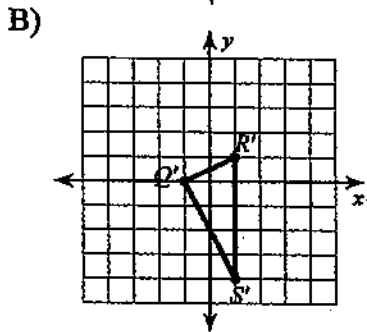
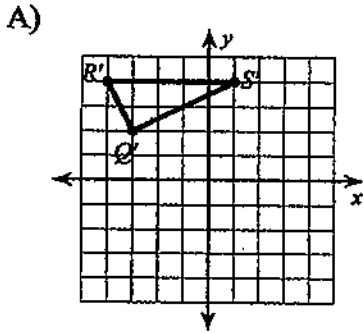
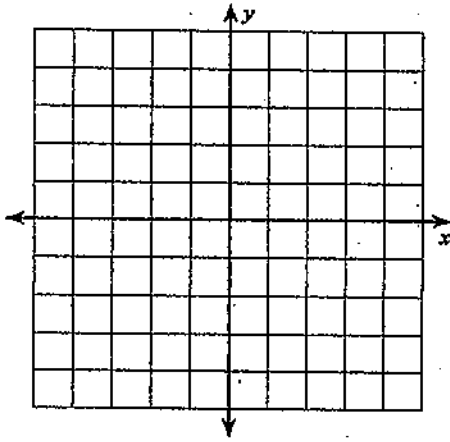
Graph the image of the figure using the transformation given.

- 1) rotation 90° counterclockwise about the origin
 $X(4, -5)$, $W(1, -1)$, $V(3, -1)$, $U(5, -5)$

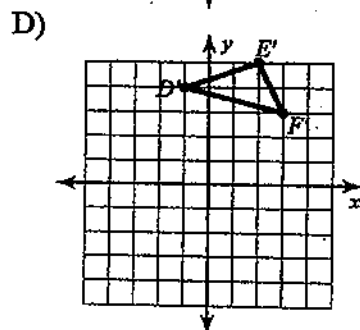
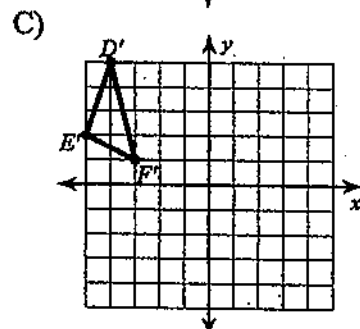
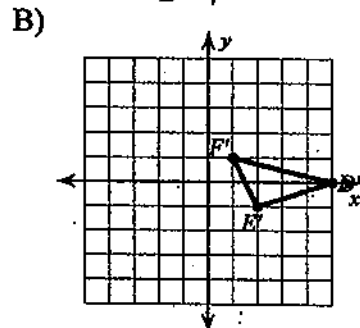
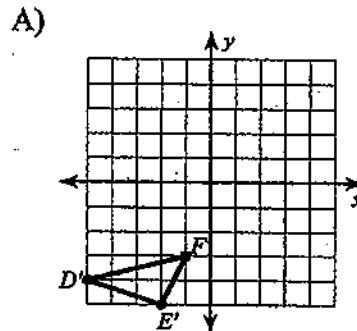
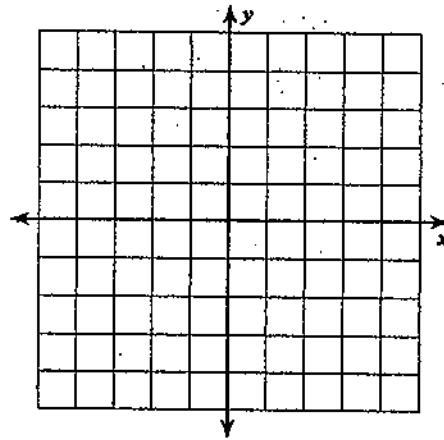
- 2) rotation 90° counterclockwise about the origin
 $R(-5, -4)$, $S(-5, -3)$, $T(-2, -1)$, $U(-4, -4)$



3) rotation 90° counterclockwise about the origin
 $Q(2, 3), R(4, 4), S(4, -1)$



4) rotation 90° counterclockwise about the origin
 $F(1, 3), E(2, 5), D(5, 4)$

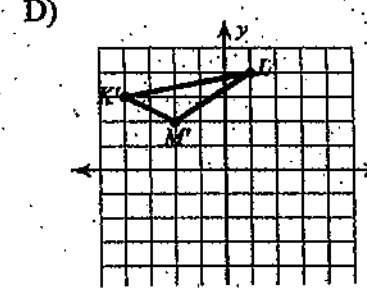
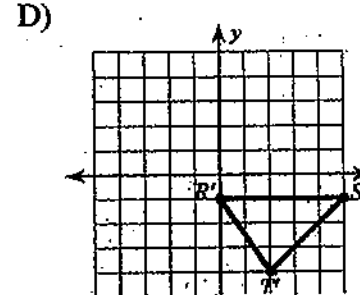
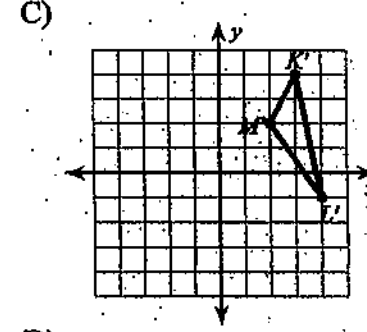
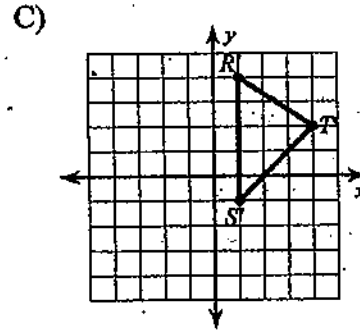
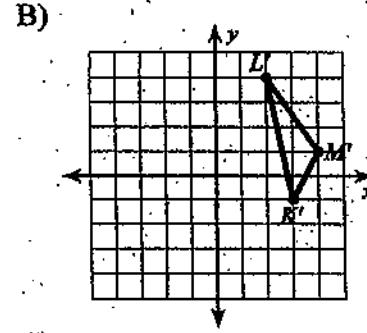
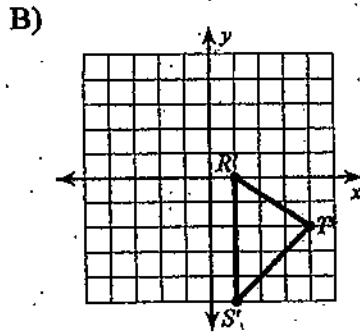
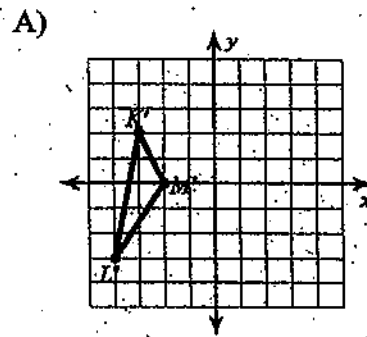
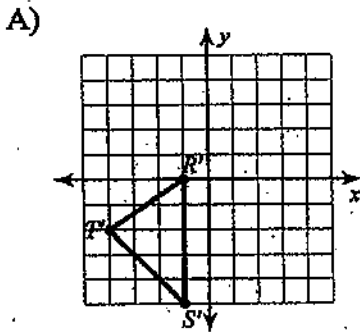
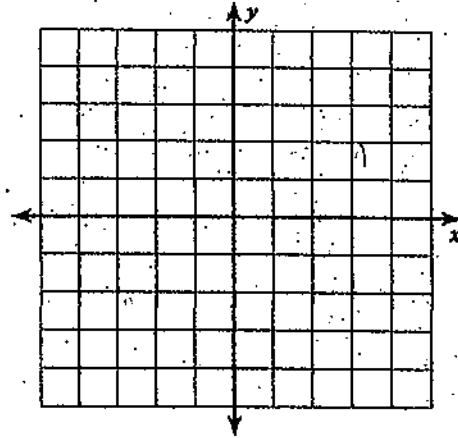
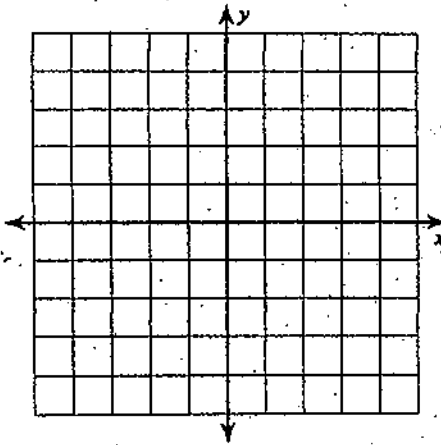


Rotations - 180

Graph the image of the figure using the transformation given.

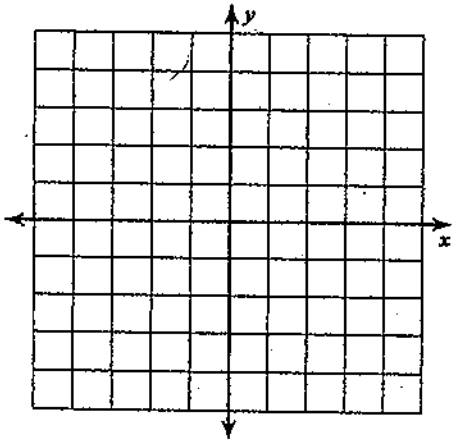
- 1) rotation 180° about the origin
 $R(1, 0), S(1, 5), T(4, 2)$

- 2) rotation 180° about the origin
 $K(-3, -4), L(-4, 1), M(-2, -2)$

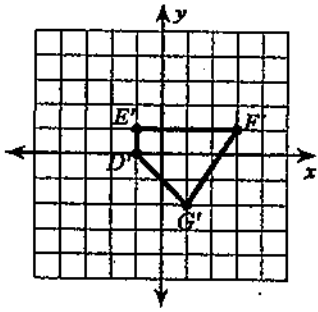


3) rotation 180° about the origin

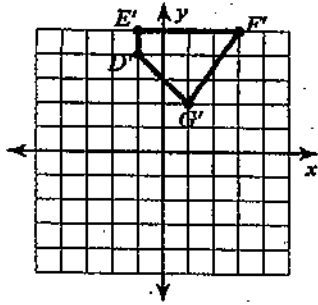
$D(-5, 2), E(-5, 3), F(-1, 3), G(-3, 0)$



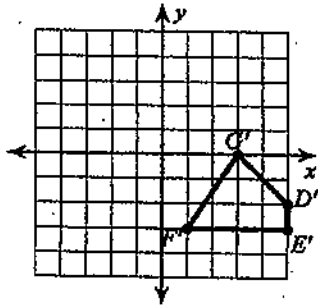
A)



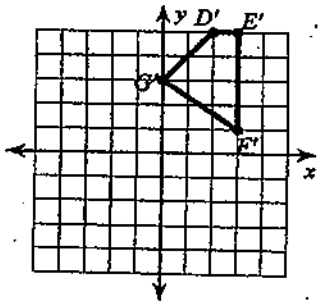
B)



C)

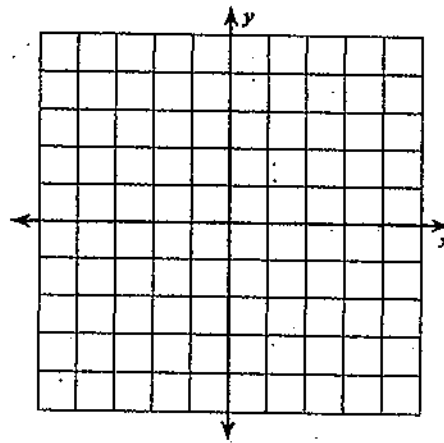


D)

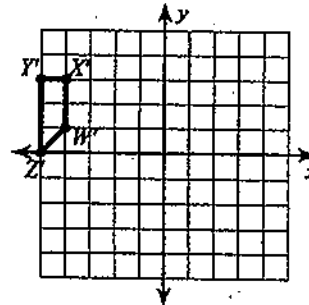


4) rotation 180° about the origin

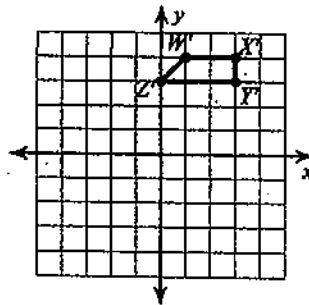
$W(-4, 1), X(-4, 3), Y(-3, 3), Z(-3, 0)$



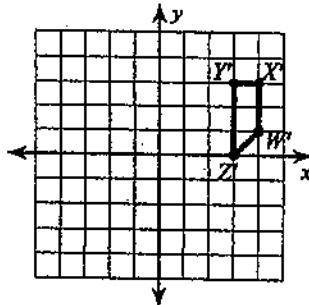
A)



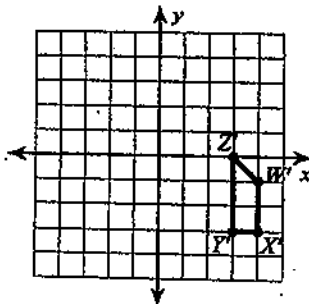
B)



C)



D)

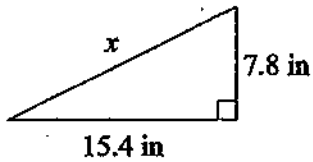


Pythagorean Theorem - Missing Side

Date _____ Period _____

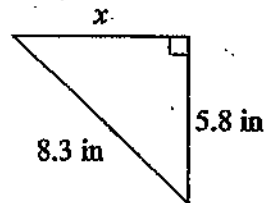
Find the missing side of each triangle. Round your answers to the nearest tenth if necessary.

1)



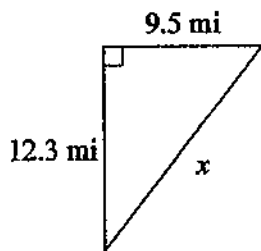
- A) 13.3 in B) 19 in
C) 17.3 in D) 23.2 in

2)



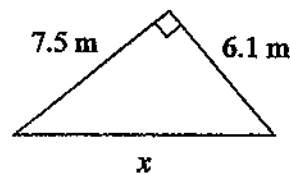
- A) 10.1 in B) 10.2 in
C) 5.9 in D) 1.1 in

3)



- A) 7.8 mi B) 19.8 mi
C) 15.5 mi D) 18.2 mi

4)



- A) 9.7 m B) 4.4 m
C) 12.3 m D) 11.5 m

Find the missing side of each right triangle. Side c is the hypotenuse. Sides a and b are the legs. Round your answers to the nearest tenth if necessary.

5) $b = 7.7$ yd, $c = 12.4$ yd

- A) 14.6 yd B) 15.7 yd
C) 5.9 yd D) 9.7 yd

6) $a = 5.6$ cm, $b = 12.7$ cm

- A) 13.9 cm B) 15 cm
C) 18.8 cm D) 11.4 cm

7) $b = 14.7$ m, $c = 15.5$ m

- A) 16.3 m B) 21.4 m
C) 13.9 m D) 4.9 m

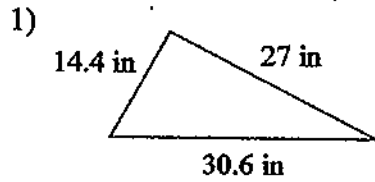
8) $b = 9.3$ mi, $c = 13.2$ mi

- A) 1.4 mi B) 9.4 mi
C) 16.1 mi D) 16.2 mi

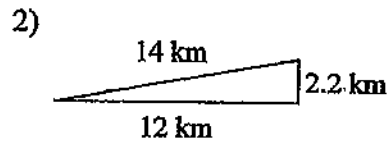
Pythagorean Theorem - Right Triangle?

Date _____ Period _____

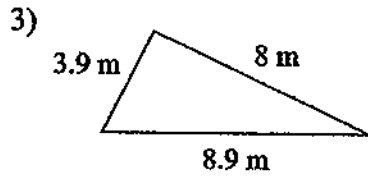
State if each triangle is a right triangle.



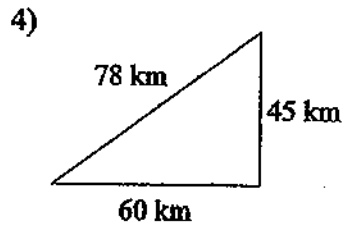
- A) No B) Yes



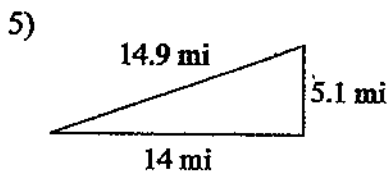
- A) Yes B) No



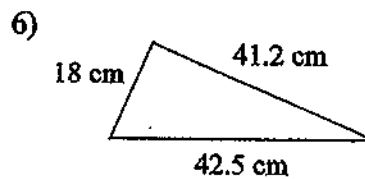
- A) No B) Yes



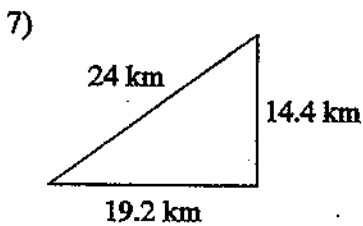
- A) No B) Yes



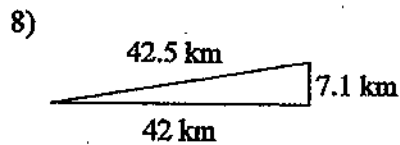
- A) No B) Yes



- A) Yes B) No



- A) No B) Yes



- A) No B) Yes

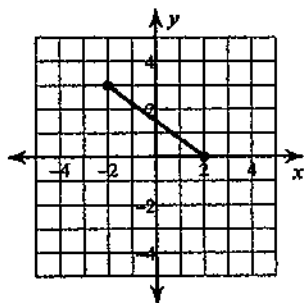
Pythagorean Theorem - Distance Between Points

Date _____

Period _____

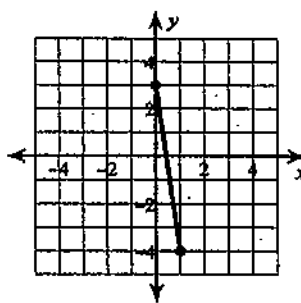
Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

1)



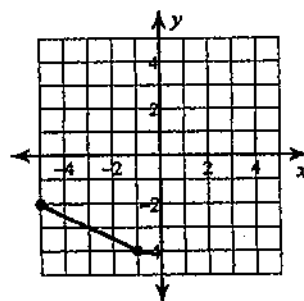
- A) 7.8 B) 5
C) 2.6 D) 3

2)



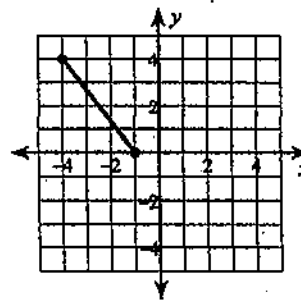
- A) 2.8 B) 4.5
C) 1.4 D) 7.1

3)



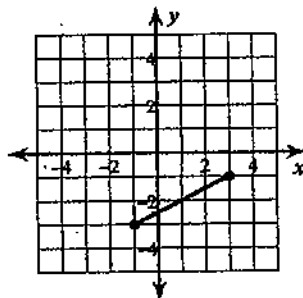
- A) 5.1 B) 2.4
C) 8.5 D) 4.5

4)



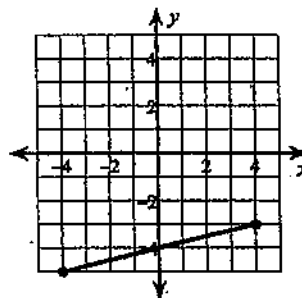
- A) 5 B) 3
C) 2.2 D) 2.6

5)



- A) 4.5 B) 2.4
C) 4.1 D) 3.5

6)



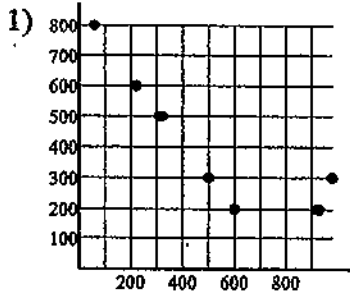
- A) 3.2 B) 8
C) 2.8 D) 8.2

Scatter Plot - Type of Association/Correlation

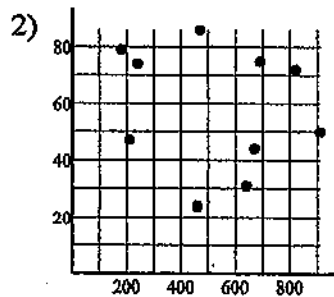
Date _____

Period _____

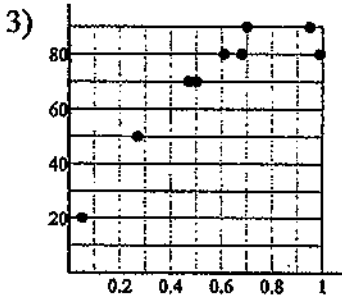
State if there appears to be a positive correlation, negative correlation, or no correlation.



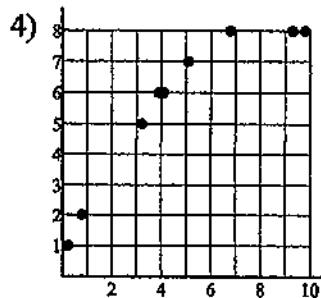
- A) Negative correlation
- B) Positive correlation
- C) No correlation



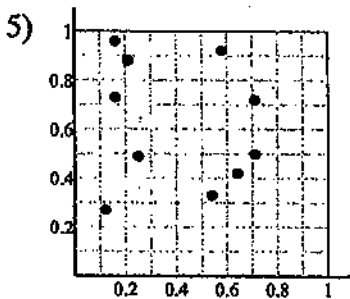
- A) Positive correlation
- B) No correlation
- C) Negative correlation



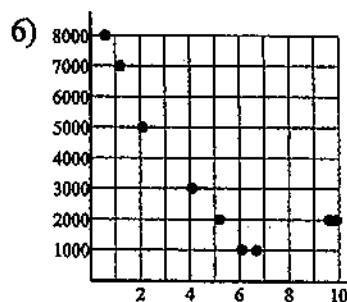
- A) Positive correlation
- B) Negative correlation
- C) No correlation



- A) Negative correlation
- B) No correlation
- C) Positive correlation



- A) Positive correlation
- B) Negative correlation
- C) No correlation

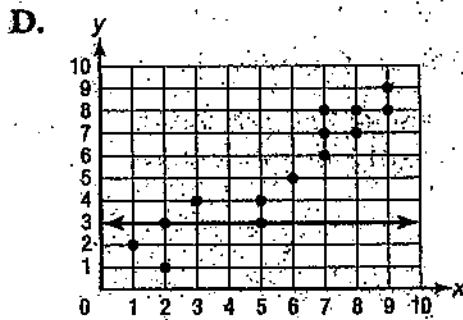
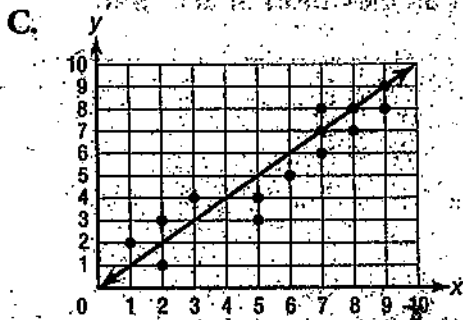
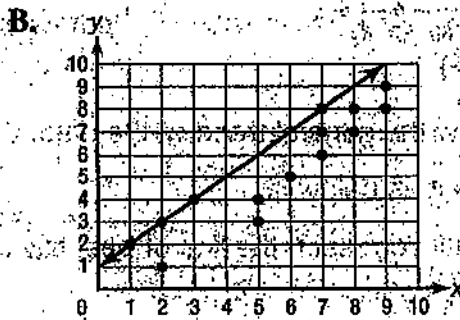
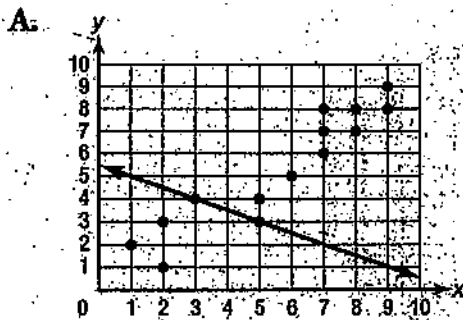


- A) Negative correlation
- B) Positive correlation
- C) No correlation

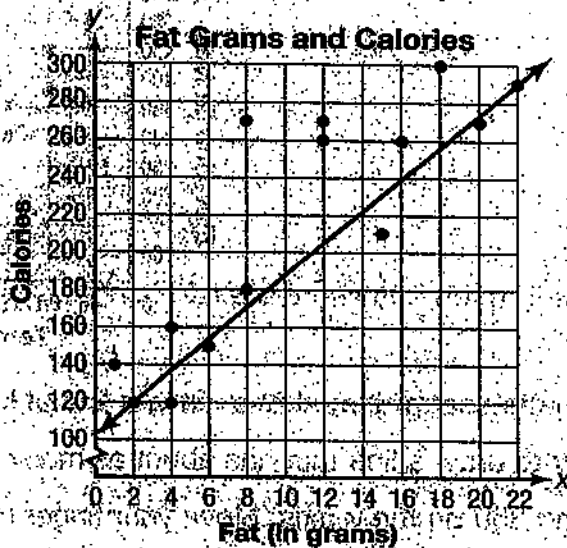
HW

Choose the correct answer.

1. Which of these lines best fits the given data?



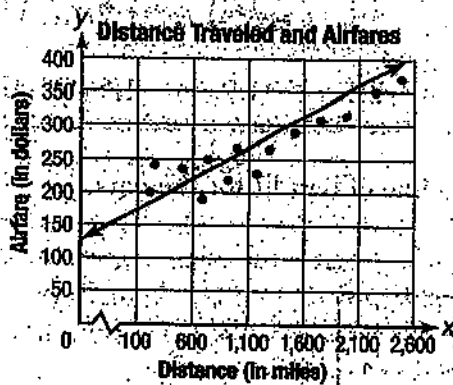
2. The scatter plot compares the number of grams of fat to the number of calories in some foods. A line of best fit has been drawn for these data.



Which statement is true about the line of best fit drawn above?

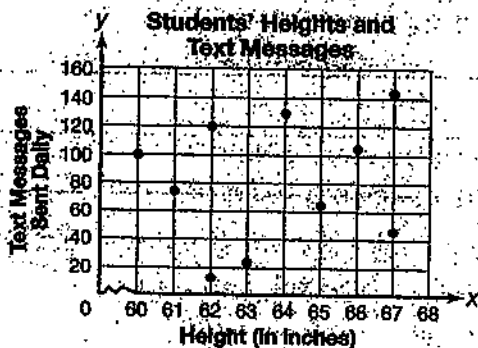
- A. The line comes close to most points, so it is a very good model for the data.
- B. The line shows the correct association, but it does not come close to most points.
- C. The scatter plot shows no association, so a line should not be used to model the data.
- D. The data do not resemble a straight line, so a nonlinear model would be better for these data.

3. The scatter plot shows the airfares paid and the distances that customers traveled. A line of best fit has been drawn for these data.



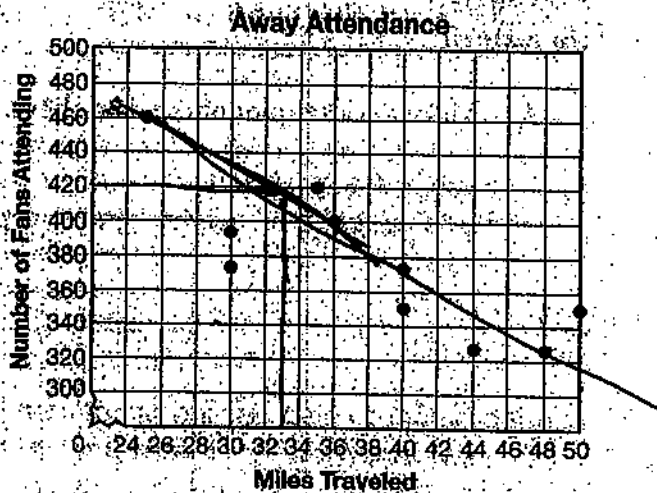
Based on the data in the scatter plot, which is the best prediction for the cost of a 100-mile trip?

- A. \$75
 B. \$100
 C. \$175
 D. \$250
4. The scatter plot below compares students' heights to the number of text messages they send daily. What would be the best prediction of the number of text messages sent by a student who is 68 inches tall?



- A. 20
 B. 45
 C. 110
 D. The scatter plot shows no association, so it is not possible to make a prediction.

5. The scatter plot below shows the attendance at a sports team's away games. What would be the best prediction of the number of fans who would attend an away game if they had to travel 35 miles?



- A. 360
 B. 400
 C. 440
 D. The scatter plot shows no association, so it is not possible to make a prediction.

Distance Formula - Two Points

Date _____

Period _____

Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

1) $(6, -6), (1, 3)$

- A) 6.3 B) 3.7
C) 10.3 D) 7.6

2) $(2, 4), (6, -6)$

- A) 7.7 B) 10.8
C) 3.7 D) 8.2

3) $(2, 0), (-7, -2)$

- A) 2.6 B) 5.4
C) 3.3 D) 9.2

4) $(7, 8), (-1, -8)$

- A) 2.8 B) 11.7
C) 4.9 D) 17.9

5) $(-1, -6), (8, -3)$

- A) 4 B) 9.5
C) 3.5 D) 11.4

6) $(-1, 8), (-4, -2)$

- A) 10.4 B) 7.8
C) 3.3 D) 3.6

7) $(1, 0), (-3, -6)$

- A) 2 B) 6.3
C) 7.2 D) 3.2

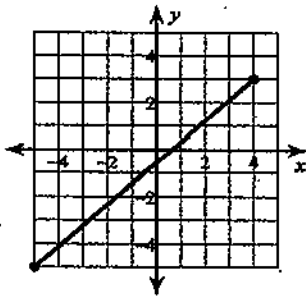
8) $(6, -8), (-3, 4)$

- A) 4.6 B) 15
C) 5 D) 2.6

Distance Formula - Graph

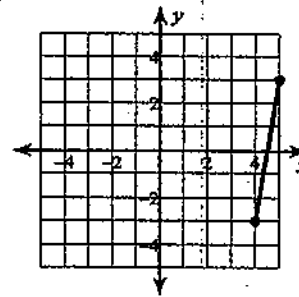
Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

1)



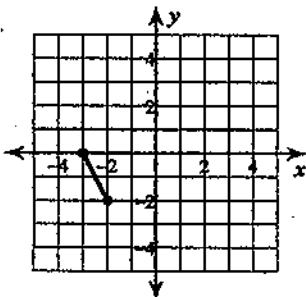
- A) 4.1
- B) 12
- C) 2.2
- D) 1

2)



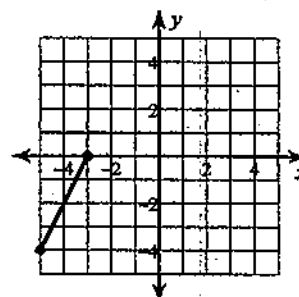
- A) 9
- B) 6.1
- C) 2.6
- D) 3

3)



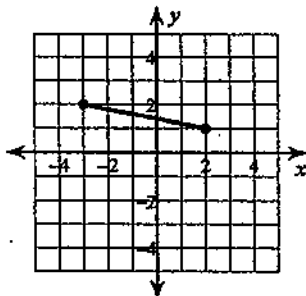
- A) 2.2
- B) 4.6
- C) 1.7
- D) 6.3

4)



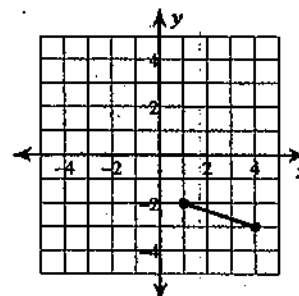
- A) 8.9
- B) 2
- C) 2.4
- D) 4.5

5)



- A) 2.4
- B) 3.2
- C) 2.8
- D) 5.1

6)



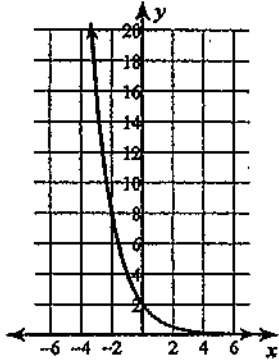
- A) 7.1
- B) 2
- C) 2.2
- D) 3.2

Exponential Functions - Graphing

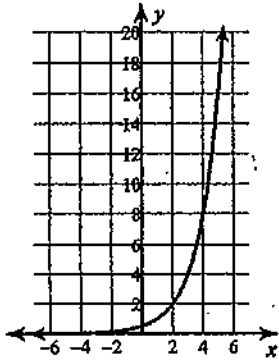
Sketch the graph of each function.

1) $y = 5 \cdot \left(\frac{1}{2}\right)^x$

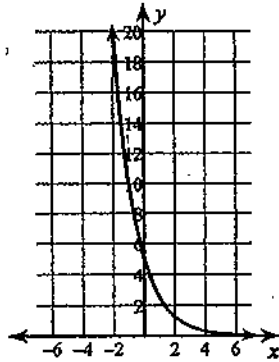
A)



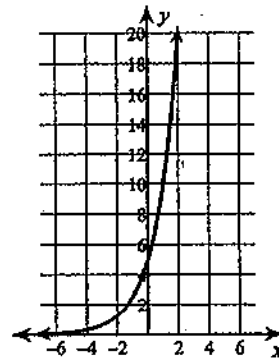
B)



C)

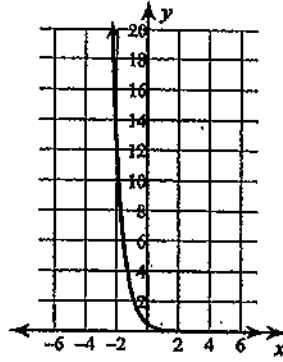


D)

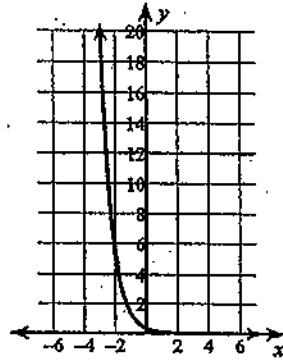


2) $y = 4 \cdot 2^x$

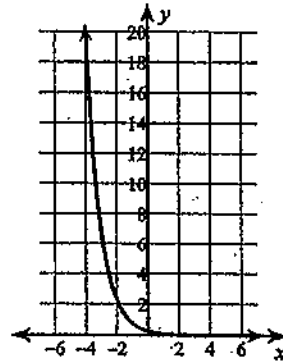
A)



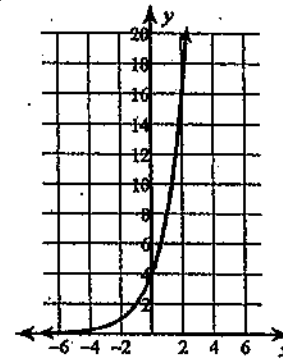
B)



C)

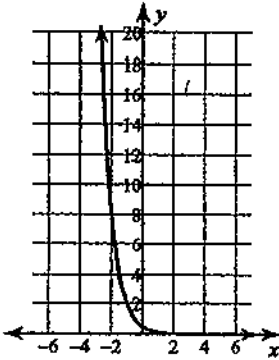


D)

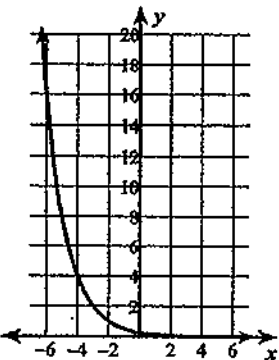


$$3) y = \frac{1}{2} \cdot \left(\frac{1}{4}\right)^x$$

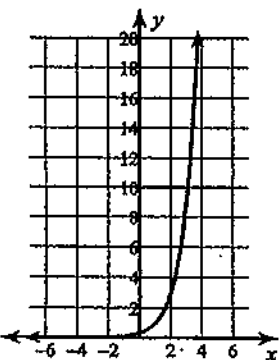
A)



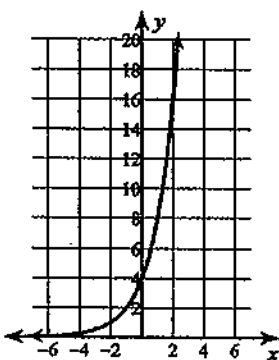
B)



C)

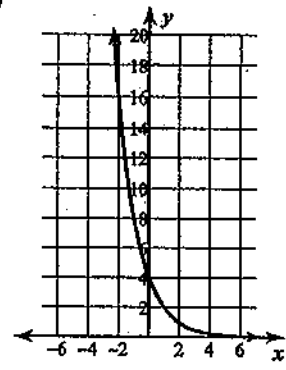


D)

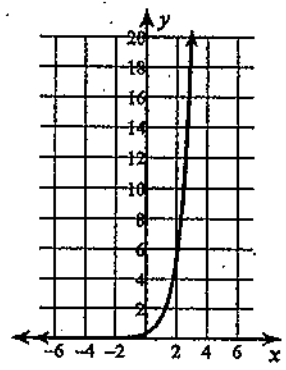


$$4) y = 3 \cdot 2^x$$

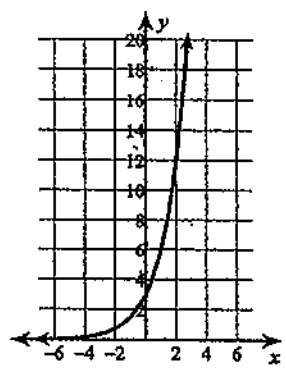
A)



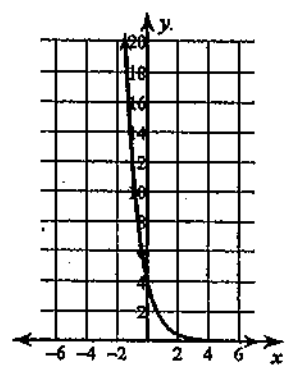
B)



C)



D)



Exponential Functions - Growth and Decay

Date _____

Period _____

1. You deposit \$200 into a bank account. Every year that account increases by 12%. [EXAMPLE] **Growth**

Initial value: 200

Growth factor: 1.12

$$\text{Equation: } y = 200(1.12)^x$$

$$y = 200(1.12)^5$$

How much will be in
the bank account after
5 years?

$12\% = 1.12 = .12 + 1 = 1.12$ is
the growth
factor.

- (a) \$250.10
(b) \$352.47
(c) \$563.95

2. The population of an apartment building is 4,000 people. Every month the population goes down by 12%.

Initial value:

Growth factor:

Equation:

If this continues, how many people will live in
the apartment building after 3 months?

- (a) 2725
(b) 3468
(c) 630

$12\% = 1.12$ **Decay**
 $1 - .12 = .88$
is the decay
factor.

3. You start a bank account with \$500 and the interest on the account is 8% every year.

Initial value:

Growth factor:

Equation:

How much do you have in your bank account
after 4 years?

- (a) \$538.21
(b) \$680.24
(c) \$4000

4. The New York Mets sign a new player for \$8,000,000 and his salary goes up by 3% every year.

Initial value:

Growth factor:

Equation:

How much does the player make after 3 years?

- (a) \$8,741,816
(b) \$7,234,764
(c) \$9,780,000

5. A certain stock was worth \$42 at the beginning of the day. Every hour the stock goes down by 15%.

Initial value:

Growth factor:

Equation:

How much is the stock worth after 7 hours?

- (a) \$37.12
(b) \$21.95
(c) \$13.46

Simplifying Radicals - Numbers ONLY

Date _____

Period _____

Simplify.

1) $\sqrt{343}$

A) $16\sqrt{2}$

C) $5\sqrt{6}$

B) $7\sqrt{7}$

D) $6\sqrt{6}$

2) $\sqrt{20}$

A) $2\sqrt{5}$

C) $7\sqrt{7}$

B) 4

D) $2\sqrt{2}$

3) $\sqrt{245}$

A) $4\sqrt{6}$

C) $7\sqrt{5}$

B) 6

D) $3\sqrt{3}$

4) $\sqrt{112}$

A) $4\sqrt{6}$

C) $8\sqrt{6}$

B) $4\sqrt{7}$

D) $5\sqrt{5}$

5) $\sqrt{28}$

A) $2\sqrt{7}$

C) $6\sqrt{2}$

B) $8\sqrt{2}$

D) $7\sqrt{2}$

6) $\sqrt{448}$

A) $5\sqrt{2}$

C) $8\sqrt{7}$

B) $3\sqrt{5}$

D) $8\sqrt{2}$

7) $\sqrt{8}$

A) $2\sqrt{2}$

C) $5\sqrt{7}$

B) $5\sqrt{5}$

D) 4

8) $\sqrt{72}$

A) 14

C) $8\sqrt{6}$

B) $6\sqrt{2}$

D) 4

9) $\sqrt{32}$

A) $5\sqrt{7}$

C) 8

B) $4\sqrt{2}$

D) 10

10) $\sqrt{384}$

A) $3\sqrt{2}$

C) $16\sqrt{2}$

B) $5\sqrt{3}$

D) $8\sqrt{6}$

Simplifying Radicals - Numbers and Variables

Date _____ Period _____

Simplify.

1) $\sqrt{32m^4}$

A) $4m^2\sqrt{2}$

B) $7\sqrt{2m}$

C) $3\sqrt{2m}$

D) $10m\sqrt{2}$

2) $\sqrt{8k}$

A) $3\sqrt{7k}$

B) $14k\sqrt{k}$

C) $2\sqrt{2k}$

D) $2k\sqrt{6}$

3) $\sqrt{175p^4}$

A) $14p$

B) $5p^2\sqrt{7}$

C) $5p\sqrt{7}$

D) $16p\sqrt{2p}$

4) $\sqrt{32x^2}$

A) $2x^2\sqrt{5}$

B) $2x\sqrt{2}$

C) $4x\sqrt{2}$

D) $2\sqrt{7x}$

5) $\sqrt{98a^4}$

A) $7a^2\sqrt{2}$

B) $5\sqrt{5a}$

C) $16a\sqrt{2a}$

D) $4a\sqrt{6a}$

6) $\sqrt{18m^2}$

A) $3m\sqrt{2}$

B) $3m^2\sqrt{6}$

C) $6m$

D) $16m$

7) $\sqrt{12m^3}$

A) $2m\sqrt{3m}$

B) $8m\sqrt{7}$

C) $6\sqrt{5m}$

D) $6m\sqrt{2}$

8) $\sqrt{28p}$

A) $16p\sqrt{2}$

B) $2\sqrt{7p}$

C) $5p\sqrt{7}$

D) $8p^2\sqrt{2}$

9) $\sqrt{72x^3}$

A) $8x\sqrt{7x}$

B) $6x\sqrt{2x}$

C) $2x\sqrt{6x}$

D) $6\sqrt{7x}$

10) $\sqrt{64n^4}$

A) $8n^2$

B) $14n$

C) $6\sqrt{2n}$

D) $16n^2$

Quadratic Formula - Day 1

Date _____ Period _____

Solve each equation with the quadratic formula.

1) $2v^2 + 9v - 3 = 0$

- A) $\{0.312, -4.812\}$
- B) $\{0.322, -9.322\}$
- C) $\{10, -10\}$
- D) No solution.

2) $2p^2 + 10p - 132 = 0$

- A) $\{7.53, -17.53\}$
- B) $\{6, -11\}$
- C) $\{4, -2.6\}$
- D) $\{1.5, -3.5\}$

3) $4x^2 + 8x - 21 = 0$

- A) $\{1.5, -3.5\}$
- B) $\{5, -5.333\}$
- C) $\{0.655, -3.055\}$
- D) No solution.

4) $3x^2 + 5x - 68 = 0$

- A) $\{1.689, -3.355\}$
- B) $\{4, -5.667\}$
- C) $\{6, -6\}$
- D) $\{3, -3\}$

5) $4r^2 - 9r - 100 = 0$

- A) $\{3.866, -1.616\}$
- B) $\{6.25, -4\}$
- C) $\{4, -6.25\}$
- D) $\{6.466, -15.466\}$

6) $2a^2 + 7a - 19 = 0$

- A) $\{1.794, -5.294\}$
- B) $\{1.793, -0.893\}$
- C) $\{1.384, -1.384\}$
- D) $\{9.09, -2.09\}$

7) $k^2 + 8k - 20 = 0$

- A) $\{7.058, -1.558\}$
- B) No solution.
- C) $\{2, -10\}$
- D) $\{0.223, -1.223\}$

8) $4n^2 + 3n - 14 = 0$

- A) $\{1, -5\}$
- B) $\{1.533, -2.283\}$
- C) $\{9.099, +1.099\}$
- D) No solution.

Quadratic Formula - Day 2

Date _____ Period _____

Solve each equation with the quadratic formula.

1) $a^2 - 4 = 12a$

- A) {0.325, -12.325}
- B) {12.325, -0.325}
- C) {12.083, -0.083}
- D) {11.657, 0.343}

2) $n^2 - 4n = 140$

- A) {12.458, -5.458}
- B) {14, -10}
- C) {2.833, -4}
- D) {1.198, -2.365}

3) $6x^2 + 5x = 1$

- A) {0.167, -1}
- B) {0.414, -2.414}
- C) {1, -0.167}
- D) {1}

4) $6n^2 - 60 = 9n$

- A) {0.565, -2.065}
- B) {3, -1.25}
- C) {4, -2.5}
- D) {1.75, -3}

5) $10n^2 + 10n = -10$

- A) {1.653, -2.319}
- B) No solution.
- C) {2.319, -1.653}
- D) {3.196, -7.196}

6) $6a^2 - 132 = 9a$

- A) No solution.
- B) {16.839, -7.839}
- C) {3.212, -1.712}
- D) {5.5, -4}

7) $12n^2 - 3 = -2n$

- A) {5, -11}
- B) {0.424, -0.59}
- C) No solution.
- D) {8, -8.5}

8) $5b^2 - 9b = 72$

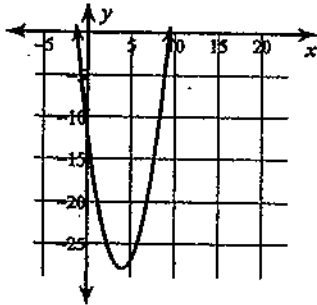
- A) {5.105, -14.105}
- B) {4.8, -3}
- C) No solution.
- D) {5, -16}

Quadratic Functions - Graphing

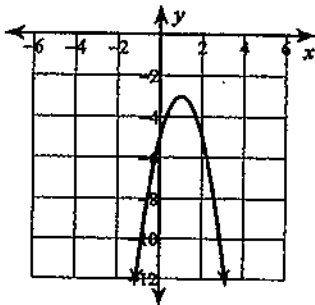
Sketch the graph of each function.

1) $y = -x^2 - 2x - 2$

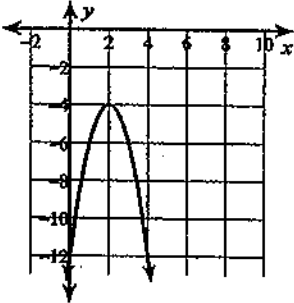
A)



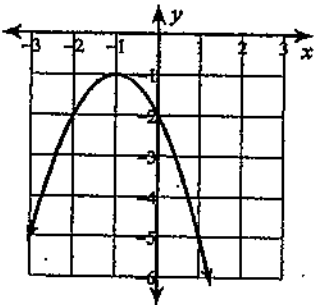
B)



C)

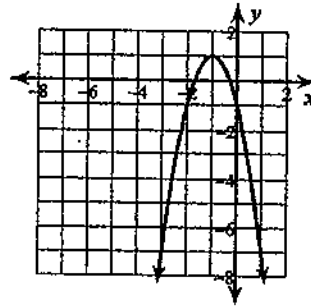


D)

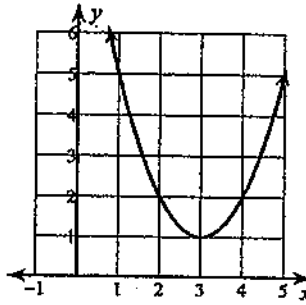


2) $y = -2x^2 - 4x - 1$

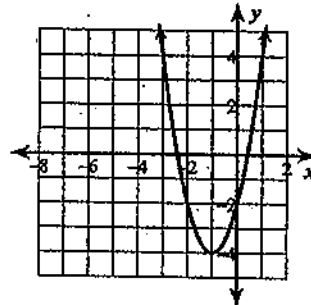
A)



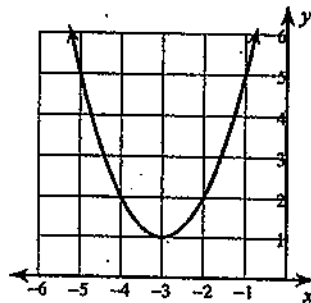
B)



C)

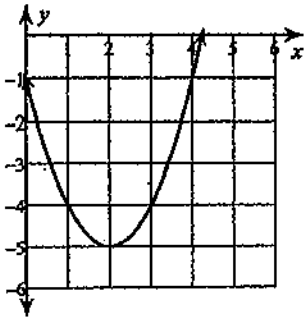


D)

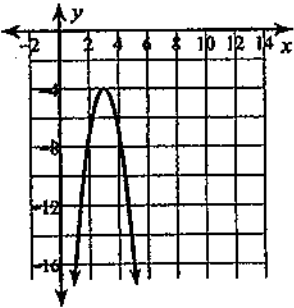


3) $y = 2x^2 + 4x - 1$

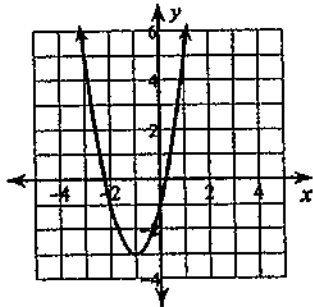
A)



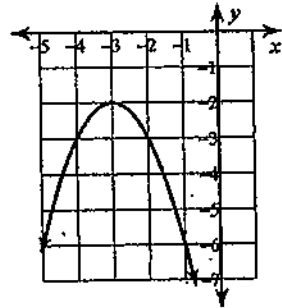
B)



C)

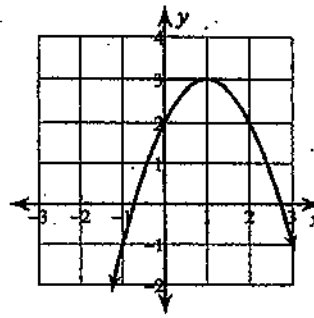


D)

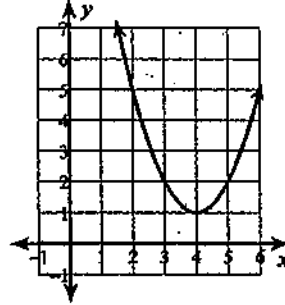


4) $y = 2x^2 + 12x + 20$

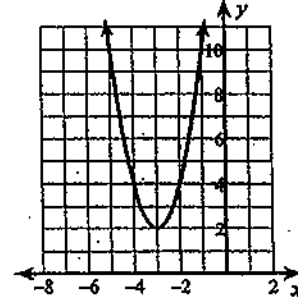
A)



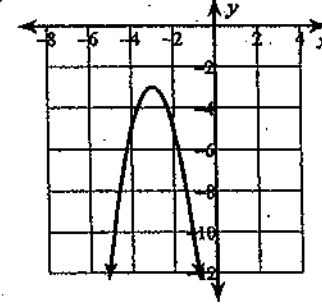
B)



C)



D)

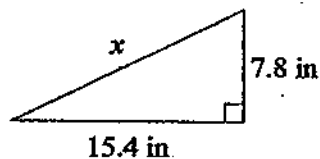


Pythagorean Theorem - Missing Side

Date _____ Period _____

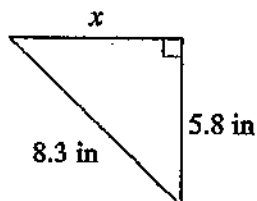
Find the missing side of each triangle. Round your answers to the nearest tenth if necessary.

1)



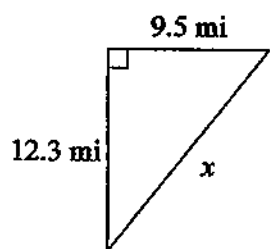
- A) 13.3 in B) 19 in
C) 17.3 in D) 23.2 in

2)



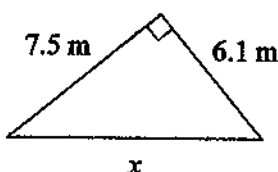
- A) 10.1 in B) 10.2 in
C) 5.9 in D) 1.1 in

3)



- A) 7.8 mi B) 19.8 mi
C) 15.5 mi D) 18.2 mi

4)



- A) 9.7 m B) 4.4 m
C) 12.3 m D) 11.5 m

Find the missing side of each right triangle. Side c is the hypotenuse. Sides a and b are the legs. Round your answers to the nearest tenth if necessary.

5) $b = 7.7$ yd, $c = 12.4$ yd

- A) 14.6 yd B) 15.7 yd
C) 5.9 yd D) 9.7 yd

6) $a = 5.6$ cm, $b = 12.7$ cm

- A) 13.9 cm B) 15 cm
C) 18.8 cm D) 11.4 cm

7) $b = 14.7$ m, $c = 15.5$ m

- A) 16.3 m B) 21.4 m
C) 13.9 m D) 4.9 m

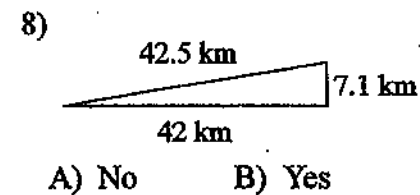
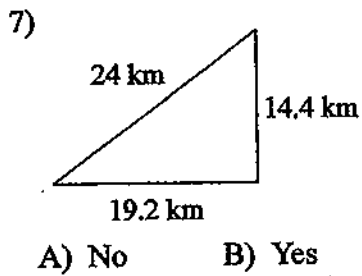
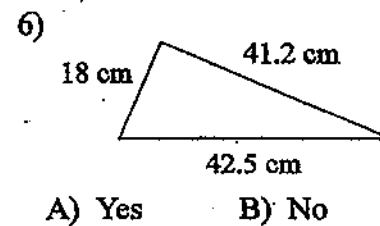
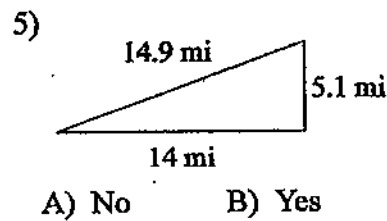
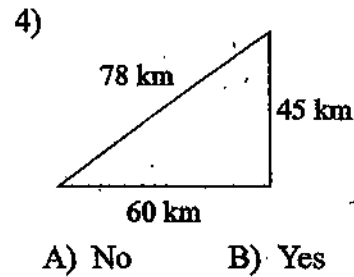
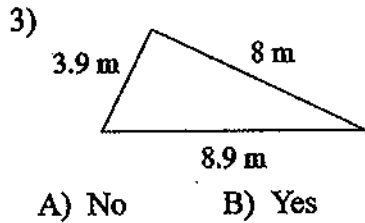
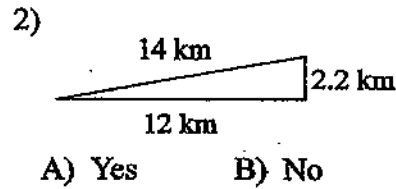
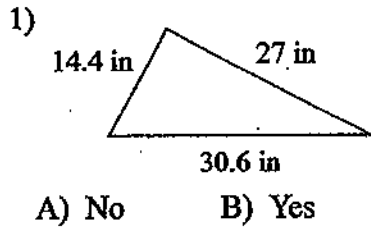
8) $b = 9.3$ mi, $c = 13.2$ mi

- A) 1.4 mi B) 9.4 mi
C) 16.1 mi D) 16.2 mi

Pythagorean Theorem - Right Triangle?

Date _____ Period _____

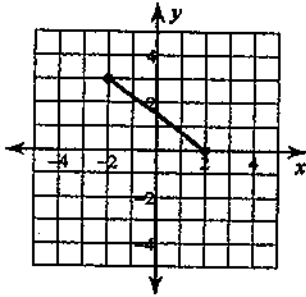
State if each triangle is a right triangle.



Pythagorean Theorem - Distance Between Points

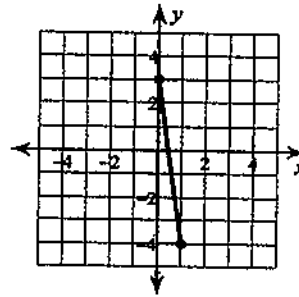
Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

1)



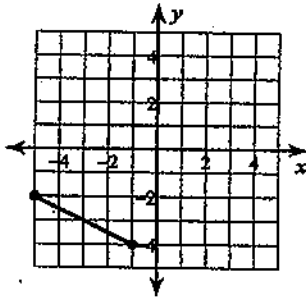
- A) 7.8 B) 5
- C) 2.6 D) 3

2)



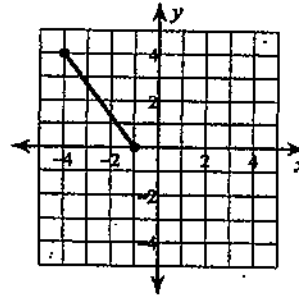
- A) 2.8 B) 4.5
- C) 1.4 D) 7.1

3)



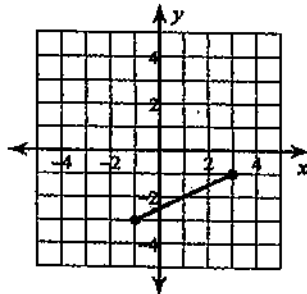
- A) 5.1 B) 2.4
- C) 8.5 D) 4.5

4)



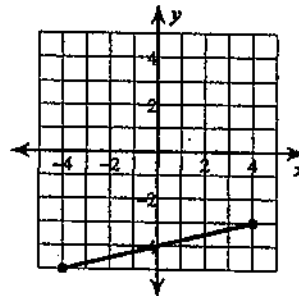
- A) 5 B) 3
- C) 2.2 D) 2.6

5)



- A) 4.5 B) 2.4
- C) 4.1 D) 3.5

6)



- A) 3.2 B) 8
- C) 2.8 D) 8.2

Journal Entry

In chapter 15, The Giver has to do one of the hardest things of his life: impart the memory of the terrible suffering of war to Jonas. The chapter ends: The Giver looked away, as if he could not bear to see what he had done to Jonas. "Forgive me," he said. Suppose that after Jonas leaves the Annex room each day, The Giver makes a journal entry in which he records and reacts to the afternoon's work. In a well developed paragraph, write The Giver's journal entry for the afternoon described in chapter 15. Below is a possible start to your journal entry. If you would like to start your own journal entry, just re-write "Dear Journal," on the first line.

Dear Journal,

I could've sent him away, as I have sent him away before. It would have been so simple to tell him to go and he wouldn't have been hurt at all. I could've sent him away. I didn't...

Cause and Effect

Figuring out why events happen in a story or play can add to your understanding of a story. For each chapter listed below, write the cause, or reason the event happens, or write the effect, or result.

Chapter	Cause	Effect
Chapter 9	<i>Jonas is told that he can tell a lie.</i>	
Chapter 10	<i>The Giver tells Jonas that he failed at training the previous Receiver.</i>	
Chapter 11		<i>Jonas asks why the community no longer has snow.</i>
Chapter 15		<i>Jonas experiences the horrors of war.</i>
Chapter 16		<i>Jonas asks his parents if they love him.</i>

Ignorance is Bliss

In this section, Jonas is startled to find his friends playing a gruesome game of war. While Jonas is burdened with memories of pain and violence, his friends and family continue to live in blissful ignorance, unaware that suffering exists. In a Utopian society, there is no suffering. Use the graphic organizer below to consider the advantages and disadvantages of Jonas's community where no one has memories of war and suffering. Then answer the questions about painful memories in our society.

Advantages of No Memories

Disadvantages of No Memories

1. How do members of our society honor those who have fought in wars or experienced violence first hand?

2. What are the consequences of living in a society where no one remembers or learns about the past?

3. Do you think our society would be better off if we could forget tragedies of the past and move on? Explain your answer.

Evolution of a Hero

Since the beginning of the novel, we have seen Jonas change in many ways. Think back on the Character Trait chart that you completed after reading the first 4 chapters. Based on your reading thus far, consider how Jonas has changed. Support your analysis with evidence from the text. Then, using the information from the chart, write a well-developed paragraph comparing and contrasting Jonas from the beginning of the novel until now.

	<i>Jonas at the beginning of the novel</i>	<i>Jonas now</i>	<i>Evidence from the text</i>
<i>Jonas' actions</i>			
<i>Jonas' thoughts</i>			
<i>Jonas' words</i>			
<i>Jonas' feelings</i>			
<i>How Jonas is thought of / treated by others</i>			

(Write paragraph below...)

Theme

A theme of a literary work is an insight or idea about life or human nature revealed in the work. One way of figuring out a theme is to apply the lessons learned by the main character to your own life or to people you know. In *The Giver*, Lois Lowry shares some of her views about memories, pain, and freedom of choice. Think about a theme that is related to the topics listed below...the last is left blank for your own idea. Complete each with an insight, idea, or lesson learned in this novel...by Jonas, and therefore by you.

Theme about *Memories*:

Theme about *Pain*:

Theme about *Choice*:

Theme about _____:

Cliffhanger Ending

While Lois Lowry has written a "companion novel" to The Giver called Gathering Blue, she has stated that she will never write an actual sequel to The Giver. (Ultimately, she did publish more stories that tell us the real ending--The Messenger and Son. If you want to know her intentions, you can read the rest of the series...though nothing really picks up right where this novel leaves off, so speculation is still possible.) The ending of the story as it is gives us a cliffhanger, and some readers may conclude happy or tragic endings. However, it is these loose ends that might provide a good foundation for a sequel. Using your own interpretation of the ending, answer the questions below about what you think happened at the end of The Giver. Be sure to provide a thorough explanation for each of your conclusions.

Did Jonas and Gabriel make it down the hill? Is there really a welcoming home waiting for them at the bottom?

How does the onslaught of memories affect certain members of the community (Asher, Fiona, Lily, Jonas's father)?

How does the community handle or adapt to the memories?





LOIS LOWRY ▶ THE GIVER

Chapters 14-18

✓ vocabulary.com

Twelve-year-old Jonas lives in a regimented community that is free from pain and suffering — but also free from joy, independence, and even color. When he is appointed the community's Receiver of Memory, Jonas begins to question everything he has been taught.

agony

✓ intense feelings of suffering; acute mental or physical pain

In his **agony** he perceived the word "fire" and felt flames licking at the torn bone and flesh.

"Agony" is from the Greek "agon" which means "struggle" and can be seen in the words "protagonist" and "antagonist." Usually, a protagonist is agonized because of a struggle with a specific antagonist. Here, Jonas is struggling with the pain of a memory of a broken leg. The antagonists that cause Jonas agony are not identifiable humans he can fight; rather, they are the world's memories of the past and his present community's attitudes and approaches towards life.

writhe

✓ move in a twisting or contorted motion

Then, suddenly, he was in the Annex room again, **writching** on the bed.

brutal

✓ harsh

The **brutal** slice of pain was gone.

"Brutal" also means "resembling a brute or beast; showing lack of human sensibility"--this definition is the opposite of what the brutal pain does to Jonas: while it may temporarily reduce him to a screaming pile of flesh and bone, it also makes him more aware of what being human means and feels like. The Giver explains, "It gives us wisdom."

deliverance

✓ recovery or preservation from loss or danger

There was always a dab of anesthetic ointment, or a pill; or in severe instances, an injection that brought complete and instantaneous **deliverance**.

linger

✓ leave slowly and hesitantly

But this ache **lingered**.

unendurable

✓ incapable of being put up with

It was not **unendurable**, as the pain on the hill had been.

desperately

- ✓ in a state of intense distress and hopelessness

*The realization made him feel **desperately** lonely, and he rubbed his throbbing leg.*

forsake

- ✓ leave someone who needs or counts on you; leave in the lurch

*Again and again he dreamed of the anguish and the isolation on the **forsaken** hill.*

fracture

- ✓ breaking of hard tissue such as bone

*The agony of the **fractured** leg began to seem no more than a mild discomfort as The Giver led Jonas firmly, little by little, into the deep and terrible suffering of the past.*

assuage

- ✓ provide physical relief, as from pain

*It was not enough to **assuage** the pain that Jonas was beginning, now, to know.*

excruciating

✓ extremely painful

"Why?" Jonas asked him after he had received a torturous memory in which he had been neglected and urfed; the hunger had caused **excruciating** spasms in his empty, distended stomach.

"Torturous" and "excruciating" are synonymous adjectives with different roots: "torturous" comes from the Latin "torquere" which means "to twist" (and can also be seen in "contorted"); "excruciating" comes from the Latin "cruciare" and "cruz" which mean "to crucify on a cross"—this could suggest that the Receiver is a Christ-like figure, since both were chosen to take on the painful burdens of the larger community.

burden

✓ a serious or difficult concern

"But then everyone would be **burdened** and pained. They don't want that. And that's the real reason The Receiver is so vital to them, and so honored. They selected me—and you—to lift **that burden** from themselves."

ominous

✓ threatening or foreshadowing evil or tragic developments

Now it was **ominous**. It meant, he knew, that nothing could be changed.

rigid

✓ fixed and unmoving

The Giver was **rigid** in his chair, his face in his hands.

contorted

- ✓ twisted, especially as in pain or struggle

The Giver looked up at him, his face **contorted** with suffering.

anguish

- ✓ extreme distress of body or mind

"Put your hands on me," he directed, aware that in such **anguish** The Giver might need reminding.

brace

- ✓ prepare for something unpleasant or difficult

Jonas **braced** himself and entered the memory which was torturing The Giver.

parched

- ✓ dried out by heat or excessive exposure to sunlight

"Water," the voice said in a **parched**, croaking whisper.

carnage

✓ the savage and excessive killing of many people

The colors of the **carnage** were grotesquely bright: the crimson wetness on the rough and dusty fabric, the ripped shreds of grass, startlingly green, in the boy's yellow hair.

"Grotesque" means "distorted and unnatural in shape or size" (often to a monstrous degree)--this is a fitting adjective for the colors of carnage, especially to a boy who is unused to seeing color and images of war.

immobilize

✓ cause to be unable to move

One of Jonas's arms was **immobilized** with pain, and he could see through his own torn sleeve something that looked like ragged flesh and splintery bone.

implore

✓ beg or call upon in supplication

Finally, when the container was open, he extended his arm slowly across the blood-soaked earth, inch by inch, and held it to the lips of the boy. Water trickled into the **implore**ing mouth and down the grimy chin.

stench

✓ a distinctive odor that is offensively unpleasant

Overwhelmed by pain, he lay there in the fearsome **stench** for hours, listened to the men and animals die, and learned what warfare meant.

solitude

✓ the state or situation of being alone

*Although he had through the memories learned about the pain of loss and loneliness, now he gained, too, an understanding of **solitude** and its joy.*

permeate

✓ spread or diffuse through

*And his new, heightened feelings **permeated** a greater realm than simply his sleep.*

shudder

✓ tremble convulsively, as from fear or excitement

*Then they were all silent, standing awkwardly, and the only sound was the sound of Jonas's **shuddering** breaths.*

Jonas is shuddering because he is struggling not to cry. Having experienced war through a memory, he is distraught at the sight of children giggling while they pretend to kill and die. Although crying is often seen as weakness, Jonas shows courage when he walks into the center of the field, stands alone against the players, and displays an intense emotion that the others don't know how to respond to.

dejected

✓ affected or marked by low spirits

*"Me," Jonas said in a **dejected** voice. He was not looking forward to the end of the training, when he would become the new Receiver. It was clear to him what a terribly difficult and lonely life it was, despite the honor.*

falter

✓ be or become weak, unsteady, or uncertain

His voice **faltered** and trailed off.

insist

✓ be emphatic or resolute and refuse to budge

She **insisted** that I continue, that I not spare her.

inflict

✓ impose something unpleasant

I couldn't bring myself to **inflict** physical pain on her.

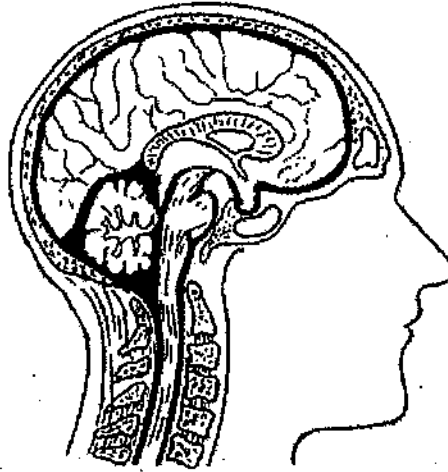
devastate

✓ overwhelm or overpower

I was so **devastated** by my own grief at her loss, and my own feeling of failure, that I didn't even try to help them through it.

Memories - Good and Bad

by ReadWorks



A person's memory can be like a mansion with many, many rooms. Some of the rooms you visit frequently, while others you may not enter for many years. As you age, some of these rooms may change, and you may remember things slightly differently than how they actually happened. In other cases, the rooms may stay the same, but the doors may become locked. Sometimes these rooms can only be unlocked if you find a special key. Some of these rooms you may enjoy visiting; some of them, you may just wish the door stayed shut.

One of the keys that can often unlock a person's memory is a specific sensory input—something you can see, smell, touch, taste, or hear. There is the famous case of the novelist Marcel Proust, who tasted a madeleine—a kind of cookie—and it caused him to suddenly remember an enormous amount of his childhood, memories that had previously been locked away. He went on to write a seven-volume novel called *In Search of Lost Time*, in which he explored these memories and what they meant to him. Proust might not have written these volumes exactly as they are had he not eaten that fateful madeleine.

As Proust demonstrates, while we can consciously summon certain memories—for example, if you try to think of your mother's face, you can almost certainly do it—there are others that visit us involuntarily. This has to do with how the human brain is wired. While much of the brain is still mysterious to scientists, it has been determined that the memory center of the brain, where memories are made and stored, is closely linked to the sensory center, where the brain controls and processes the body's senses. A certain sensory input, such as Proust's cookie, may fire up not just the sensory center, but the memory center, too.

The senses you possess are a way for your brain to monitor what's going on outside. When you receive a particular sensory input, meaning one of your senses is stimulated, that sense will send a signal to your brain telling the information it just received. For example, when Proust tasted his cookie, the sense receptors on his tongue sent a message to his brain telling it how the madeleine

tasted. The messages are signals transmitted along nerve cells until they reach the brain. When the brain receives these signals, it processes them and controls the body's reaction to them. Sense receptors react to many different types of inputs, including electromagnetic, mechanical, and chemical. In Proust's case, his tongue was sensing the chemical makeup of the cookie and its mechanical properties, such as the cookie's hardness and brittleness.

When a nerve signal reaches the brain, the brain can react in a multitude of ways. Often the signal will trigger immediate behaviors or memories that happen automatically, without conscious decisions on your part. For example, let's say you're barefoot, and you step on something sharp. You probably wouldn't have time to think, "Gosh, that really hurts. Should I lift up my foot? Yes, I think I'll do that." Your brain, having registered the pain, reacts by lifting up your foot without you thinking about it. Just as your brain receives signals from its sense receptors through nerve cells, it can send out a command through nerve cells. In this case, your brain sent a signal to your foot telling it to move away from the sharp object.

Not all behaviors your brain tells you to do are the best choices. If you're walking in the woods and you see a bear, your brain, having received the image of the bear through the eye's optic nerve, may start producing chemical compounds called hormones. Amongst other things, hormones affect moods and many behaviors. In this case, the brain will likely produce a hormone called adrenaline, which causes your body to gain energy and alertness. It may also send a signal to your legs that says, "Run!" This is because your brain might have learned from experience that it is a good idea to run from danger. However, in this case, running from a bear is a bad idea. Instead, experts say people should back away from the bear at a relatively slow pace. If you run, the bear is more likely to chase. Hopefully, you will remember this fact, and the next time you see a bear in the woods, your brain will access the memory of what to do.

The way the brain reacts to what it senses often has a lot to do with how it has learned to react in the past. Consider the case of a soldier who goes to war. When a soldier is on a battlefield, he or she very frequently feels unsafe. The soldier may believe that the enemy could strike at any time. As part of his or her training, the soldier has learned to stay alert for any signs of danger and, if one is detected, to react immediately. This is often very important, as any hesitation could result in harm to the soldier or his or her fellow soldiers. Good soldiers often learn to react automatically to certain kinds of danger, much like how people would react automatically when they step on something sharp. For example, if soldiers hear a gunshot, they may react immediately by dropping to the ground to avoid getting hit.

The longer a soldier stays at war, the more his or her brain can become used to reacting in this way. The soldier's senses may become attuned to certain inputs they were never attuned to before the war. For example, his or her nose may begin to be alert for odors that signal danger, and the soldier's ears may become alert to certain sounds. If he or she successfully avoids danger using his or her senses in this way, then the soldier's brain would tell him or her to continue doing this. The brain may also become quicker at releasing hormones, such as adrenaline, if it has been trained to defend the body in this way.

While these reactions may serve the soldier extremely well in a combat zone, they may not be as useful when he or she is at home. In fact, the soldier may have to spend some time readjusting to being in a place where the potential of danger is low. This is because the brain has become used to reacting to certain inputs in a particular way and may need some time to be trained to react in a different way. For example, on the battlefield, the brain might have learned to react to the sound of an

airplane by producing adrenaline to prepare the soldier for action. However, if the soldier is away from the battlefield and hears a plane, this injection of adrenaline probably wouldn't help much.

Soldiers, particularly soldiers who have been deeply affected by their time in combat, may, like Proust, be overwhelmed by a flood of memories when they receive certain sensory inputs. While some of these memories may be positive, others may be distressing. The 1998 film *Saving Private Ryan* featured scenes of the historic D-Day landing at Normandy Beach that were recreated in incredible detail. In the battle, many soldiers were killed. When the film was released, there were reports of veterans, particularly World War II veterans, who grew deeply disturbed at seeing the battle scenes. In part, this was because, by recreating the sights and sounds of battle, the film had unlocked many memories the veterans had of the war, some of which were very painful.

Sometimes, triggering memories can be valuable for healing. Every year, many veterans visit the Vietnam Veterans Memorial in Washington, D.C. The memorial is a long wall into which the names of U.S. soldiers who died in the war are etched. Veterans visit the wall for many reasons, but it is nearly always an experience that draws up many emotional memories. Seeing the names and touching the wall can hurt, but it can also remind people of trusted friends whom they lost to the war. Without the wall, these memories might stay locked in a room.

Name: _____ Date: _____

1. What is sensory input?

- A. something that a person can see, smell, touch, taste, or hear
- B. an electric shock
- C. a memory
- D. a message from the brain that produces hormones

2. The passage describes ways that sensory input can help people access or "unlock" forgotten memories.

Which of the following describes evidence that sensory input can unlock a memory?

- A. Your brain produces a hormone that tells you to run when you see a bear.
- B. Marcel Proust ate a madeleine and recalled a large portion of his childhood.
- C. You automatically move your foot away from a sharp object after stepping on that object.
- D. You can remember what your mother's face looks like.

3. Behaving a certain way for an extended period of time can affect the way that our brains react to sensory input in the future. What evidence from the text supports this conclusion?

- A. writing a novel and remembering things from a long time ago
- B. moving away from something that causes you pain automatically
- C. feeling scared when you see something dangerous
- D. a former soldier hearing a plane overhead and automatically producing adrenaline

4. Why are sense reactors important?

- A. They tell your body to run away from bears.
- B. They help make your memory stronger.
- C. They are the way that your brain processes what's going on in the world around you.
- D. They let your brain know which parts of your environment to ignore.

5. What is this passage mostly about?

- A. the life of Marcel Proust
- B. the way that our brains respond to sensory input
- C. how soldiers acclimate to life at home after returning from war
- D. how to unlock the hidden memories in your brain

6. The author uses a metaphor to compare human memory to something else. What does the author compare human memory to?

- A. a mansion with many rooms
- B. a maze
- C. a locked door
- D. Marcel Proust's *In Search of Lost Time*

7. Choose the answer that best completes the sentence below.

Soldiers develop reactions that serve them extremely well in combat, _____, they may not be as useful when the soldiers return home.

- A. instead
- B. however
- C. therefore
- D. consequently

8. Sense receptors respond to a number of different types of inputs.

Use evidence from the text to support this statement.

9. Describe how soldiers may need to adjust their behavior when they are no longer in a combat zone.

10. Explain how sensory input impacts the ability to remember past experiences by using information from the text.

Stop Wasting Plastic

Created by: Ian Des Ruisseaux, Cain Martin, Anthony
Garner, and Griffin Coulter

Stop littering

- More than 8 million tons of plastic is dumped into our oceans every year. By recycling we could lower that number significantly, but instead, it's clogging up waterways, destroying wildlife and ecosystems and polluting the land. It is estimated that over 100 million animals die per year due to plastic ingestion.
- What happens to animals when they eat this waste?



Cause and Effect

Cause

- People are lazy, so they litter.
- Animals are hungry so they look for food to eat.

Effect

- Animals find the plastic, and they don't know the difference between regular food and plastic.
- They eat the plastic, but they can't digest it. It gets stuck in their stomach, and they get the signal that they're full... but they aren't. They'll starve to death.

Things we can do to prevent this

- If we want to prevent excessive waste, we need to be wiser.
- We should recycle and be cognizant of the environment
- We need to consider the animals effected and invest in technologies aimed at changing our approach to both using, and disposing, plastics.
- We could use metal straws instead of plastic ones, utilize biodegradable materials and pass legislation or provide incentives for people to recycle.

Why do people litter

- People litter because their lazy. Instead of discarding trash properly, they leave it on the ground, or elsewhere for others to pick up.



Different types of plastic

- One type of plastic is called BPA which is commonly sold commercially in plastic water bottles.
- Polyvinyl Chloride, commonly known as PVC
- Polypropylene, a.k.a. PP
- Polyethylene Terephthalate, PET, and PETE. Both are names for this type of plastic.
- There's a bunch more, many different plastics for many different things.
- According to the website waste4change.com, we need to know these types of plastic... Because they are the most important.

New technology to recycle

- Before we tell you these new ways to recycle, you should know a bit about plastic.
- "Most plastics are made of polymers, chains of carbon and hydrogen, which are chiefly derived from petroleum products like crude oil"
- "Polymers are composed of shorter strands called monomers. To give plastics certain characteristics like toughness, flexibility or color, certain chemicals are added which form strong bonds with the monomers."
- Over time, plastics worsen every time they are recycled.
- Researchers at Lawrence Berkeley National Laboratory found a new type of plastic called polydiketoenamine, or PDK for short.
- This plastic has a specific monomer structure (aided by an acidic solution, which takes off other added monomers) which allows the plastic to be reused more times than previous designs.

Name: _____

Stop Wasting Plastic

- ◆ About how many tons of plastic are dumped in our oceans every year?

- ◆ What effects does plastic have on animals?

- ◆ What is the biggest way we can prevent plastic littering?

- ◆ What type of people litter? And why?

Weather or Climate?

By Cindy Grigg

¹ What is the difference between climate and weather? The simple answer is "time."

² Weather is what is happening in the atmosphere, the mixture of gases around the Earth, at a certain time and place. Weather changes constantly. Air masses move. Fronts form when two air masses of different temperatures with different moisture contents meet. Then the weather will change. Often a front brings thunderstorms. Warm air rises. Cooler air sinks. It rains. It's sunny. Weather changes from day to day or from hour to hour.

³ Climate is the **average** weather in a place over a long time.

Weather data is recorded for a number of years. Climate is the average weather that has been recorded. Earth has many different climate zones. Tropical climate zones lie on either side of the equator. Polar zones are found near the North and the South Poles. Temperate climates are not too hot or too cold. Desert climates don't receive much rainfall. *Climate change* is a trend of change in climate averages of the past.

⁴ Many things affect the climate of a place. One thing is latitude. *Latitude* is a measure of the distance from the equator. Higher latitudes are closer to the North or South Pole. There, the sun's rays are less direct than at the equator. The sun's energy is spread out over a larger area. There the land and ocean don't get as much of the sun's heat, so they have lower temperatures. At the equator, the sun's rays are nearly at a right angle to Earth's surface. The sun's energy is concentrated. Land and ocean waters receive more heat than those near the poles.

⁵ *Wind* patterns affect the climate. If the wind starts out over water, it carries more water. If winds begin over land, the air mass is dryer. If the winds begin at high latitudes, the air masses are colder. Winds that start out in the tropics carry warmer air.

⁶ *Mountains* affect the climate of a place. Along the mountains of the western coast of the U.S., for one example, it is common to have lush green forests on the windward side. Moist air over the Pacific holds lots of water. The wind blows the moist air toward the mountains. The mountain is a barrier that pushes the air upward, and this causes it to cool. Cool air holds less moisture, so it rains on the side of the mountain facing the coast. The air that passes over the other side is dry. This is called the rain shadow effect. Because of this effect, deserts often are found on the leeward side (the side away from the wind) of mountains.

⁷ *Ocean currents* also shape the climate of a place. A current is a steady flow of water moving in one direction, like a river in the ocean. Warm ocean currents like the Jet Stream move heat from near the equator to the colder north. This makes the climate warmer along the coast of Great Britain, for instance. Currents in the ocean help distribute the uneven heat of the sun. Warmer water moves from the equator toward the poles. Cold water around the poles moves toward the equator.

⁸ Weather changes from day to day. Climate is the average weather over a number of years in a particular area. Different patterns of temperature and rainfall are found in different climates. Many different factors affect the climate of a certain place.

Climate Zones of the Continental United States



Weather or Climate?

<p>1. _____ is what is happening in the air or atmosphere at one time in one place.</p> <p><input type="radio"/> (A) Climate</p> <p><input type="radio"/> (B) Weather</p>	<p>2. Weather stays the same all the time.</p> <p><input type="radio"/> (A) False</p> <p><input type="radio"/> (B) True</p>
<p>3. What happens when two different air masses meet?</p> <p><input type="radio"/> (A) Fronts form</p> <p><input type="radio"/> (B) The weather will change</p> <p><input type="radio"/> (C) Thunderstorms often happen</p> <p><input type="radio"/> (D) All of the above</p>	<p>4. What does the rain shadow effect explain?</p> <p><input type="radio"/> (A) It explains why the climate is changing.</p> <p><input type="radio"/> (B) It explains why it often rains in the rainforest.</p> <p><input type="radio"/> (C) It explains why deserts are often found on the leeward side of mountains.</p> <p><input type="radio"/> (D) It explains why clouds make shadows on the ground.</p>
<p>5. What is climate?</p> <p><input type="radio"/> (A) The average weather in a place over a long time</p> <p><input type="radio"/> (B) The same as weather</p> <p><input type="radio"/> (C) The reason for deserts near some mountains</p> <p><input type="radio"/> (D) All of the above</p>	<p>6. Which one of these does not affect the climate of a place?</p> <p><input type="radio"/> (A) Ocean currents</p> <p><input type="radio"/> (B) Ground cover</p> <p><input type="radio"/> (C) Latitude</p> <p><input type="radio"/> (D) Mountains</p>
<p>7. The author's main purpose for writing this story was to _____.</p> <p><input type="radio"/> (A) Persuade readers that climate and weather are the same</p> <p><input type="radio"/> (B) Entertain readers with weather stories</p> <p><input type="radio"/> (C) Inform readers with facts about climate and weather</p> <p><input type="radio"/> (D) Express the writer's feelings about warm climates</p>	<p>8. How do ocean currents affect climate?</p>