GRADE 8

ENGLISH
MATH
SCIENCE
SOC. STUDIES

PICKENS COUNTY SCHOOLS

Standards-Based Assignment Packet

Subject/Grade: Reading & Mathematics 8

If

by Rudyard Kipling

If you can keep your head when all about you
Are losing theirs and blaming it on you;
If you can trust yourself when all men doubt you,
But make allowance for their doubting too:
If you can wait and not be tired by waiting,
Or, being lied about, don't deal in lies,
Or being hated, don't give way to hating,
And yet don't look too good, nor talk too wise;

If you can dream--and not make dreams your master;
If you can think--and not make thoughts your aim,
If you can meet with Triumph and Disaster
And treat those two impostors just the same:
If you can bear to hear the truth you've spoken
Twisted by knaves to make a trap for fools,
Or watch the things you gave your life to, broken,
And stoop and build 'em up with worn-out tools;

If you can make one heap of all your winnings
And risk it on one turn of pitch-and-toss,
And lose, and start again at your beginnings,
And never breathe a word about your loss:
If you can force your heart and nerve and sinew
To serve your turn long after they are gone,
And so hold on when there is nothing in you
Except the Will which says to them: "Hold on!"

If you can talk with crowds and keep your virtue,
Or walk with Kings--nor lose the common touch,
If neither foes nor loving friends can hurt you,
If all men count with you, but none too much:
If you can fill the unforgiving minute
With sixty seconds' worth of distance run,
Yours is the Earth and everything that's in it,
And--which is more--you'll be a Man, my son!

Name: _____ Date: _____

1. What is the second "if" statement in the poem?

A. "If you can keep your head when all about you / Are losing theirs and blamingit on you"

B. "If you can trust yourself when all men doubt you, / But make allowance fortheir doubting too"

C. "If you can dream--and not make dreams your master"

D. "If you can meet with Triumph and Disaster / And treat those two impostorsjust the same"

2. The poem begins by describing conditions and ends by describing consequences. In which line does it shift from describing conditions to describing consequences?

A. line 8

B. line 14

C. line 26

D. line 31

3. Read the first stanza of the poem.

Based on lines 5 and 6, what can you conclude about the speaker's values?

A. The speaker values curiosity and creativity.

B. The speaker values patience and honesty.

C. The speaker values good looks and political debates.

D. The speaker values the opinions of other people.

4. Read the last stanza of the poem.

What is the speaker probably urging the addressee to do in lines 29 and 30?

A. The speaker is probably urging the addressee to pay more attention to kings than to common people.

B. The speaker is probably urging the addressee to exercise more often.

C. The speaker is probably urging the addressee to make the most of his time.

D. The speaker is probably urging the addressee to relax and enjoy the moment.

5. What is a theme of this poem?

A. Becoming a grownup takes confidence, determination, and virtue.

B. Most people handle failure better than they handle success.

C. Talking about your problems is the first step toward solving them.

D. People should spend more time in crowds and less time around royalty.

6. Read these lines from the poem:

If you can think--and not make thoughts your aim, 10
If you can meet with Triumph and Disaster
And treat those two impostors just the same:
If you can bear to hear the truth you've spoken
Twisted by knaves to make a trap for fools,
Or watch the things you gave your life to, broken, 15
And stoop and build 'em up with worn-out tools;

To personify means to give human-like characteristics to something that is not human. What does the poet personify in these lines?

A. "thoughts"

B. "Triumph and Disaster"

C. "knaves" and "fools"

D. "tools"

7. Read this stanza from the poem:

If you can make one heap of all your winnings
And risk it on one turn of pitch-and-toss,
And lose, and start again at your beginnings,
And never breathe a word about your loss: 20
If you can force your heart and nerve and sinew
To serve your turn long after they are gone,
And so hold on when there is nothing in you
Except the Will which says to them: "Hold on!"

To what does the pronoun "them" refer?

A. "winnings"

B. "pitch-and-toss"

C. "beginnings"

D. "heart and nerve and sinew"

8. What does the speaker declare will be "yours" in line 31?

9. Based on the last line of the poem, what can you conclude about who the speaker of this poem is? Support your answer with evidence from the text.

10. What might the speaker's purpose be? Support your answer with evidence from the text.

Oct. 14, 1964: King Wins Nobel Peace Prize

This article is provided courtesy of History.com

African American civil rights leader Dr. Martin Luther King, Jr., is awarded the Nobel Peace Prize for his nonviolent resistance to racial prejudice in America. At 35 years of age, the Georgia-born minister was the youngest person ever to receive the award.

Martin Luther King, Jr., was born in Atlanta in 1929, the son of a Baptist minister. He received a doctorate degree in theology and in 1955 organized the first major protest of the civil rights movement: the successful Montgomery Bus Boycott. Influenced by Mohandas Gandhi, he advocated nonviolent civil disobedience to racial segregation. The peaceful protests he led throughout the American South were often met with violence, but King and his followers persisted, and their nonviolent movement gained momentum.

A powerful orator, he appealed to Christian and American ideals and won growing support from the federal government and northern whites. In 1963, he led his massive March on Washington, in which he delivered his famous "I Have a Dream" address. In 1964, the civil rights movement achieved two of its greatest successes: the ratification of the 24th Amendment, which abolished the poll tax, and the Civil Rights Act of 1964, which prohibited racial discrimination in employment and education and outlawed racial segregation in public facilities. In October of that year, King was awarded the Nobel Peace Prize. He donated the prize money, valued at $54,600, to the civil rights movement.

In the late 1960s, King openly criticized U.S. involvement in Vietnam and turned his efforts to winning economic rights for poor Americans. By that time, the civil rights movement had begun to fracture, with activists such as Stokely Carmichael rejecting King's vision of nonviolent integration in favor of African American self-reliance and self-defense. In 1968, King intended to revive his movement through an interracial "Poor People's March" on Washington, but on April 4 he was assassinated in Memphis, Tennessee, by escaped white convict James Earl Ray, just a few weeks before the demonstration was scheduled to begin.

Name: _____ Date: _____

1. What did Dr. Martin Luther King, Jr., win the Nobel Peace Prize for?

A. nonviolent resistance to racial prejudice

B. African American self-reliance

C. violent resistence to racial prejudice

D. African American self-defense

2. This article describes a sequence of events. What happened in the sequence of events before King was awarded the Nobel Peace Prize?

A. King donated $54,600 to the civil rights movement.

B. King turned his efforts to winning economic rights for poor Americans.

C. King planned an interracial "Poor People's March" on Washington.

D. King led a massive March on Washington, in which he delivered his "I Have a Dream" speech.

3. Martin Luther King, Jr., was committed to nonviolent resistance to racial prejudice, even when facing people who disagreed. What evidence from the text best supports this conclusion?

A. "The peaceful protests he led throughout the American South were often met with violence, but King and his followers persisted, and their nonviolent movement gained momentum."

B. "A powerful orator, he appealed to Christian and American ideals and won growing support from the federal government and northern whites."

C. "By that time, the civil rights movement had begun to fracture, with activists such as Stokely Carmichael rejecting King's vision of nonviolent integration in favor of African American self-reliance and self-defense."

D. "In the late 1960s, King openly criticized U.S. involvement in Vietnam and turned his efforts to winning economic rights for poor Americans."

4. Based on the text, which of King's qualities probably helped him most in gaining support?

A. his Nobel Peace Prize, doctorate degree in theology, and experience as a minister

B. his persistence, powerful speeches, and appeals to Christian and American ideals

C. his background as an African American from Georgia and his young age

D. his rejection of people who disagreed with his ideals or methods

5. What is the main idea of this text?

A. A powerful orator, Dr. Martin Luther King, Jr., appealed to Christian and American ideals and won growing support from the federal government and northern whites.

B. The Civil Rights Act of 1964 prohibited racial discrimination in employment and education and outlawed racial segregation in public facilities.

C. African American civil rights leader Dr. Martin Luther King, Jr., won the Nobel Peace Prize for his nonviolent resistance to racial prejudice in America.

D. On April 4, African American civil rights leader Dr. Martin Luther King, Jr., was assassinated in Memphis, Tennessee, by escaped white convict James Earl Ray.

6. Read these sentences from the text:

"Influenced by Mohandas Gandhi, he advocated nonviolent civil disobedience to racial segregation. The peaceful protests he led throughout the American South were often met with violence, but King and his followers persisted, and their nonviolent movement gained momentum."

Based on this evidence, what is the meaning of the word "advocated" in this excerpt?

A. urged support of

B. resisted

C. acted against

D. criticized

7. Choose the answer that best completes the sentence.

King intended to revive his movement with the "Poor People's March" on Washington. _____, he was assassinated in Memphis a few weeks before the demonstration was scheduled to begin.

A. Therefore

B. Moreover

C. However

D. Earlier

8. What did King advocate as a response to racial segregation?

9. Identify two of King's achievements that contributed to his winning the Nobel Peace Prize.

Support your answer with evidence from the text.

10. Why might King's work and accomplishments have been considered especially prize-worthy?

Support your answer with evidence from the text.

Developing Possible Solutions

by ReadWorks

For any given problem, there is often more than one solution. In some cases, there are very few solutions. In others, a countless array of perfectly good solutions can be introduced. Without a system for testing each solution to figure out which is best, we'd have no quantifiable way of figuring out which one to choose.

Once a hypothesis, or potential solution to a problem, is in place, it needs to be tested. More than one hypothesis can be tested, and results should be carefully recorded.

Some solutions are more easily identifiable as being "the best." For example: the quickest route from home to school; the gear ratio that will make it easiest and most efficient to ride your bike; the best time of year to plant tomatoes. All of these solutions address very specific, concrete problems and are highly testable. And once you've found a satisfactory solution, you may not have to do too much testing. The solution will remain satisfactory indefinitely, as long as all other variables remain constant.

Of course, there are other problems we encounter where the solution set is wide-ranging and more open-ended.

Have you ever heard the expression "to build a better mousetrap"? It's an old saying that refers to a problem-solving endeavor that invites inventors and engineers to endlessly reimagine new and better solutions. In this case, the problem is very old and famously banal-catching mice.

Most mousetraps might look like the ones we see in a hardware store. But a new, improved design is always possible. It might be something completely different. Like an electrical current rigged with mouse-charming, atonal music; a gummy surface, following the principles of flypaper, designed to

trap mice humanely; or, more organically, a housecat (with no bell).

In this case, depending on the goals and constraints of the project, an unending number of different solutions are possible. Scientists use many different techniques and resources to develop solutions-these include induction, ideas from other fields and research, their own creativity, mathematical calculations, and whatever else they may have access to. The inspiration for new and elegant solutions can come from an unexpected place. Just as artists look to the world around them for creative stimulation, scientists often take cues from the environment.

Although some people believe that artists and scientists do very different work, the two groups really have a great deal in common when it comes to problem solving and creativity.

The "stages of inquiry" a scientist goes through to come up with a satisfactory or plausible solution is sometimes romanticized in the annals of history. Throughout history, scientists have reported sensations of ideation that read thrillingly. Archimedes, for example, leapt out of his bathtub in a fit of inspiration. Eureka! (This means "I have found it!" in Ancient Greek.) Lightning may not strike every time, and most researchers learn not to rest on their laurels with that expectation. Still, many people who spend lots of time pondering difficult problems are familiar with the tickling sensation of a hunch or the satisfying power of a breakthrough.

After a solution or a set of testable solutions have been developed, the next step is to test them rigorously and systematically so that no aspect goes unexamined. In a controlled experiment, different groups of testable material are subjected to testing and compared with a control group for which outcomes are known. Experiments are usually regarded with a measure of skepticism themselves and are subject to change and redesign as the testing stage continues.

If the solution follows its predicted behavior-for instance, if the flypaper mousetrap in fact traps the mouse humanely, as desired-then it's a success. Funding is sought out for mass production of the flypaper mousetraps and investors start getting dollar signs in their eyes.

But maybe the flypaper mousetrap is faulty. Perhaps the mouse overpowers the adhesive on the trap and escapes easily. Or maybe the chemicals in the adhesive poison the trapped mice, nulling the mousetrap as a humane pest control option. There are always a number of things that can go wrong.

Once researchers observe problems with the proposed solution, they must go back and tweak the solution based on observed issues. In the case of our flypaper mousetrap, they'd have to look to the chemists who formulated the toxic adhesive. If one of the crucial goals of the mousetrap project was to leave caught mice unharmed, the process must prioritize that constraint. Once a new, non-toxic adhesive has been developed, the product will go back into testing. This process will be repeated until all of the conditions and constraints of the project have been satisfied.

This order of operations can go on for a long time. Some commercial products have appeared to meet all criteria in the lab, and once released to the general public, have failed, sometimes with dangerous results. Testing commercial products for commercial distribution is just one example of how the scientific method is applied carefully and comprehensively to make sure that solutions are as safe and successful as possible on the other end.

This stage and all stages of the scientific method are what we call *iterative*, meaning they are subject to repetition with the goal of achieving a desired goal or result. Scientists will test a solution over and

over again, altering it each time until the results satisfy every criterion.

Failures can be discouraging, but they can also be instructive and useful! Certain kinds of failure may lead to reevaluation of the project's original intent and even redefinition of the elements. For example, if our mousetrap flypaper continues to fail-no matter how many times it is altered-there is something fundamentally incompatible with mice and tacky paper. Each constituent part would have to be investigated more deeply, and new conclusions drawn from that second cycle of research would be used to inform a new design. This can lead to amazing new discoveries.

Often a testing scenario will be conducted by a group of scientists, even generations of testers, as individuals pass in and out of the experiment. It can be helpful to introduce a new individual's perspective to the research-it's a creative collaboration that benefits from many minds at work, rather than just one.

A classical model of scientific inquiry was established a long time ago by Aristotle, who broke down reasoning into three categories: abductive, deductive and inductive inference. The distinctions between these three modes of problem solving have to do with how leaps in logic are made from one set of information to the next. Abduction has been defined as *guessing*, meaning it involves making certain assumptions that are only based on known results and not yet proven. Abduction relies more heavily on creative projection than deductive or inductive inference.

Inductive inference relies upon a degree of anecdotal support from past testing. Scientists take into account specific examples of how materials or organisms are known to behave and apply that information to make predictions about how situations involving similar materials or organisms will play out. Inductive reasoning is regarded as probable, meaning that it is not foolproof. It is only more *likely.*

Deductive reasoning is the inverse. Broad principles, rather than specific examples, are applied to specific materials, organisms or situations, and results are predicted based on those ideas.

All of these strategies are called into play in a testing scenario. As more information is pulled, testing scenarios can change and evolve. There is no satisfying a truly rigorous team of scientists. In designing solutions that meet every project constraint and push research to instructive new territory, it's necessary to keep asking questions and keep redesigning experimentation, even after a seemingly satisfactory solution has been achieved. This may seem like a frustrating burden to bear, but the results have led humankind to amazing progress. Patience with the testing process is ultimately rewarded not just with advanced, reliable solutions to everyday problems, but with new information that can be applied and reapplied to other scenarios as well.

Name: _____ Date: _____

1. What is used to determine whether a potential solution to a problem will actually work?

A. creative stimulation

B. lucky guesses

C. old sayings and tickling sensations

D. a test or series of tests

2. What sequence of actions is described in this passage?

A. the steps taken to write a science textbook

B. the steps taken to play atonal music

C. the steps taken to solve a problem

D. the steps taken to interview a scientist

3. Read this sentence: "For any given problem, there is often more than one solution."

What evidence from the passage supports this statement?

A. Catching mice can be done by using electricity, a sticky surface, or a cat.

B. Abductive reasoning involves making assumptions based on results that have not been proven.

C. Artists and scientist have a lot in common, though many people do not realize it.

D. The word "eureka" means "I have found it" in Ancient Greek.

4. What is one way that testing helps scientists determine which solution for a problem works best?

A. Testing allows scientists to choose a solution without having to spend time thinking about it.

B. Testing allows scientists to rely on abductive reasoning rather than inductive and deductive reasoning.

C. Testing allows scientists to compare the effectiveness of different solutions with each other.

D. Testing allows scientists to ignore the seriousness of a problem and the importance of solving it.

5. What is this passage mainly about?

A. the discoveries of Archimedes

B. determining the best time of year to plant tomatoes

C. flypaper mousetraps

D. solving problems

6. Read the following sentence: "For any given problem, there is often more than one **solution**."

What does the word **solution** mean?

A. disaster

B. scientist

C. answer

D. artist

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

One problem may have many possible solutions, _____ it is important to perform tests in order to choose a solution.

A. as an illustration

B. so

C. instead

D. before

8. What are the three categories of scientific reasoning described by Aristotle?

_____

_____

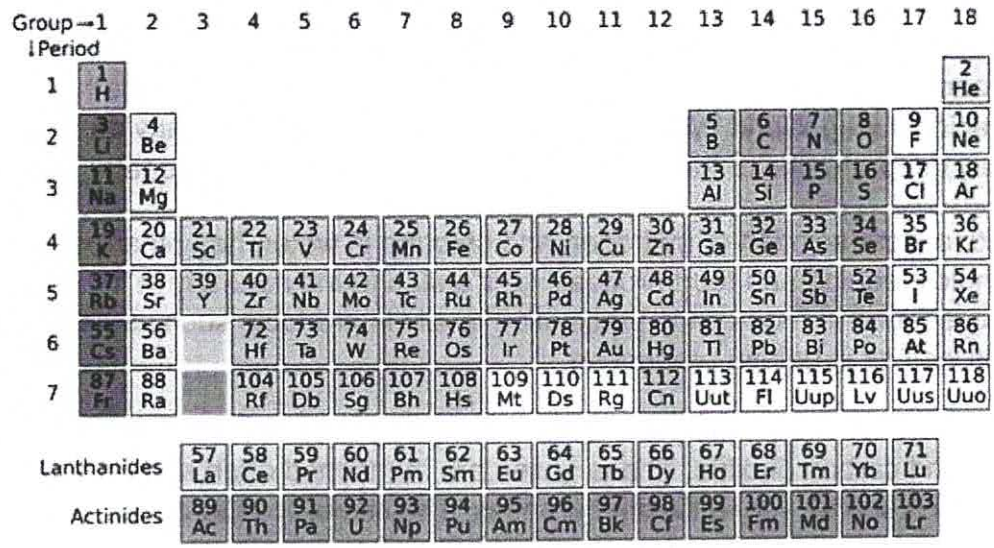
_____

9. What is deductive reasoning?

10. Explain how one of the three types of reasoning identified by Aristotle could be used in developing solutions.

Everyday Compound or Poison?

by ReadWorks



periodic table

All elements found on the periodic table have certain distinct properties. Elements are single types of atoms, while atoms are the fundamental building blocks of all matter. Gold, for instance, is a soft, naturally occurring metal known for being beautiful and desired. Gold is malleable, and while it is found naturally in the environment, it is often reworked and incorporated into fine jewelry. Oxygen is a necessary and naturally occurring element. It's an invisible, odorless gas that's a crucial part of the air we breathe and necessary for our bodies to function properly. Often, elements like those noted are combined in varying ways to create new chemical substances.

Chemical substances react in certain ways and also have certain discernible properties. For instance, when an oxygen atom and two hydrogen atoms come together they form water, which is essential to life. When the atoms of a specific substance are regrouped, a new substance is formed with often vastly different properties from the original substance. Occasionally something completely harmless, or even necessary, can become dangerous or lethal when its molecules (a grouping of two or more atoms) are regrouped.

The components of table salt are a good example of how different substances can look when their atoms are rearranged. Common table salt, also known as sodium chloride, is an interesting chemical compound because, while it is commonly consumed by humans, when you separate its elements-sodium and chlorine-you are left with something quite different from the edible seasoning known as salt.

The components of salt are sodium and chlorine, both of which are harmful for human consumption and even contact. Sodium requires great care when being handled. If it comes into contact with water, the reaction can be flammable, while powdered sodium has the potential to be combustible (explosive) in oxygen or air.

Chlorine, meanwhile, is an extremely caustic and dangerous substance. Chlorine is used primarily as

a cleaning agent; it is commonly used in swimming pools to render them sanitary, but is mixed with other chemicals and diluted for these purposes. This is what makes it safe for people to swim in swimming pools.

Chlorine has also had other, more dangerous uses in the past. Chlorine is a toxic gas that is extremely harmful to the respiratory system and may also react with certain flammable materials. When chlorine reacts with the mucous of the lungs, it can create a potentially lethal compound known as hydrochloric acid. During World War I, chlorine gas was used by Germany as a chemical weapon. It only takes a few deep breaths of the gas, at a certain potency, to cause death.

Hydrochloric acid, a clear solution of hydrogen and chlorine in water, has other uses, however, including household cleaning and food processing. It's also found naturally in the body's gastric acid. Hydrochloric acid is found in food-grade purification levels in products such as aspartame, fructose and citric acid, as well as in gelatin production.

Another, perhaps more familiar, example of atoms being regrouped to form a different compound is carbon monoxide and carbon dioxide. These gases are mentioned often and frequently mistaken for one another, but each serves very different purposes. The scientific difference between the two compounds is the number of oxygen atoms bonded with the carbon atom. But the general difference -the one we notice as humans-is quite significant.

Both carbon monoxide and carbon dioxide are colorless, odorless gases. Carbon monoxide occurs naturally in animal metabolism, plant photosynthesis, volcano eruption, forest fires and other combustion. It also comes from manmade processes like operating a stove. When carbon monoxide accumulates in a contained area, it can become lethal to humans. People who directly inhale enough carbon monoxide will lose consciousness and eventually die.

Carbon dioxide, on the other hand, occurs naturally in the atmosphere. One way carbon dioxide is produced is through the breathing processes of humans and animals. Carbon dioxide is also emitted in the burning of fossil fuels. Additionally, carbon dioxide can be found in lakes and at the bottom of the ocean.

While carbon dioxide occurs naturally and is not known to be as harmful as carbon monoxide, it can still be dangerous to humans when inhaled in certain quantities.

Slight chemical changes can radically modify the characteristics of a compound, and we don't have to look to radically different elements to find enormous differences. Sometimes only a small difference in chemical composition results in a very important alteration.

Name: _____ Date: _____

1. . What happens when the atoms of a substance are regrouped?

A. gold becomes malleable

B. the atoms break apart and disappear

C. a new substance is formed

D. the substance stays the same

2. The creation of carbon monoxide is an effect. What is one cause?

A. the regrouping of the atoms in table salt

B. the burning of fossil fuels

C. cleaning swimming pools

D. operating a stove

3. Table salt can be separated into sodium and chlorine. Sodium is explosive. Chlorine is a gas that can kill people.

What can be concluded from the statements above?

A. A harmful compound can become harmless when its elements are separated.

B. A harmless compound can become harmful when its elements are separated.

C. Breaking a compound into its separate elements has no noticeable effects.

D. Breaking a compound into its separate elements can create carbon dioxide.

4. Based on the information in the passage, what is true of gases?

A. Some, but not all, gases are harmful to humans.

B. Any gas with carbon in it is not harmful to humans.

C. All gases are harmful to humans.

D. No gases are harmful to humans.

5. What is this passage mainly about?

A. Germany's use of chlorine in World War I as a chemical weapon

B. hydrochloric acid, aspartame, fructose, citric acid, and gelatin production

C. the similarities and differences between carbon dioxide and carbon monoxide

D. changes in chemical compounds and the effects of those changes

6. Read the following sentences: "When the atoms of a specific substance are regrouped, a new substance is formed with often vastly different **properties** from the original substance. Occasionally something completely harmless, or even necessary, can become dangerous or lethal when its molecules (a grouping of two or more atoms) are regrouped."

What does the word **properties** mean above?

A. extremely large amounts

B. places where experiments are done

C. qualities or characteristics

D. elements or compounds

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

Oxygen by itself is not harmful; _____, it can become harmful when combined with carbon.

A. however

B. for instance

C. in summary

D. namely

8. What is hydrochloric acid?

_____

_____

_____

9. What is hydrochloric acid used for?

10. Should people make changes to chemical compounds? Support your answer with evidence from the passage.

Name: _____ Date: _____

Practice

Figurative Language

Figurative language helps readers picture what is being described.

- **Simile:** a comparison that uses the word *like* or *as*.
- **Metaphor:** a comparison in which one thing is said to be another.

A. Read the sentences below. Rewrite each sentence using the literal, or actual, meaning of the figurative language.

1. Grandpa is a **library of information**.

_____

2. Grandma is **like the sun and the moon to me**.

_____

3. The ocean **invited us in**.

_____

4. Her smile is **as bright as the sun**.

_____

B. Complete each sentence with a figurative expression. The first one is done for you.

5. My mother is a *tower of strength*.

6. Our team is as strong as _____.

7. The wind blows as _____.

8. The cat's fur was like _____.

9. The horse ran as fast as _____.

10. The sun _____.

Name: _____ Date: _____

Skill Builder

Using Metaphors and Similes

- A **metaphor** is a way of describing something by calling it something else. Example: *Earth is* a spinning marble.
- A **simile** is a comparison of two things using the words *like* or *as*. Example: *Earth is like* a spinning marble.
- Metaphors and similes are used in writing to show how one thing is similar to another.

Read each item below. Label it as *metaphor* or *simile*.

1. The fresh bread was as soft as a pillow.

_____

2. The whale was a steamship plowing through the water, blowing the whistle.

_____

3. I felt like a baby bird learning how to fly.

_____

4. The train was a black snake that curved around the mountain.

_____

Look at the words listed below. Write a description of each using a simile or a metaphor. Use two similes and two metaphors in all.

5. a basketball

_____

6. a book

_____

7. a cat

_____

8. snowflakes

_____

Name: _____ Date: _____

Plan: Description of a Setting

Use the chart below to help you plan a description of a setting.
Use more or fewer boxes as needed.

The setting I'm describing is _____

First, I'll describe _____
Details:

Second, I'll describe _____
Details:

Third, I'll describe _____
Details:

Fourth, I'll describe _____
Details:

Academic Vocabulary

deny

de•ny (verb)
paragraph 6

Meaning

to refuse to _____

or accept something

Example

What is something about a good friend of yours that no one can ***deny?***

No one can _____

that my good friend is _____

because (he/she) _____

_____

_____

insist

in•sist (verb)
paragraph 6

Meaning

to _____ in a firm way that something is

_____

Example

What is a time when you ***insisted*** *that you were right?*

A time when I insisted that I was right was when I _____

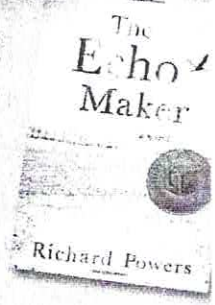
_____

_____

FROM

The Echo Maker

BY RICHARD POWERS



After nearly dying in a car accident, Mark is recovering in a hospital. He has a head injury. His sister, Karin, learns Mark has Capgras syndrome. This is a condition that affects visual perception. Mark visually remembers Karin, but all of the emotions he has connected to her are gone. He thinks she must be an imposter!

"What are you doing here, anyway? Who sent you?"

3 Her skin went metal. "Stop it, Mark," she said, harsher than intended. Sweet again, she teased, "You think your sister wouldn't look after you?"

"My sister? You think you're my sister?" His eyes drilled her. "If you think you're my sister, there's something wrong with your head."

5 She grew eerily clinical. She reasoned with him, laying out the evidence, like reading aloud another children's story. The calmer she was, the more it upset him. "Wake me up," he wailed. "This isn't me. I'm stuck in someone else's thoughts."

. . .

Days later, Mark was still **denying** her. He assembled everything else: who he was, where he worked, what had happened to him. But he **insisted** that Karin was an actress who looked very much like his sister. After many tests, Dr. Hayes gave it a name. "Your brother is manifesting a condition called Capgras syndrome. It's one of a family of misidentification **delusions**. It can occur in certain psychiatric conditions."

7 "My brother is not mentally ill."

Dr. Hayes winced. "No. But he's facing some massive challenges. Capgras is also reported in closed-head **trauma**, although that's incredibly rare. Damage in precise, probably multiple spots . . . there are only a couple of cases in the literature. Your brother is the first accident-induced Capgras patient I've ever seen."

9 "How can the same **symptom** have two completely different causes?"

"That's not clear. It may not be a single syndrome." ▶

imposter someone who pretends to be someone else to trick people
eerily strangely and frighteningly

Close Reading

Key Idea

Why does Mark think Karin is an imposter?

Mark thinks Karin is an imposter because _____

_____

_____

_____

Analyze Character

How does Karin's behavior toward Mark change? What causes the change? Cite evidence.

At first, Karin _____

_____

_____

Then she _____

_____

_____

She does this to _____

_____

Stretch

Reread paragraph 3. How does the metaphor "Her skin went metal" help you understand what Karin is feeling?

This sentence helps me understand

_____

_____

_____

_____

Academic Vocabulary

process
pro•cess (verb)
paragraph 14

Meaning

to take in and _____ information

Example

*How can you help a friend **process** upsetting news?*

I can help a friend _____

upsetting news by _____

_____

_____

_____

sufficiently
suf•fi•cient•ly (adverb)
paragraph 16

Meaning

enough; in a way that includes what is _____

Example

*How do you know when you've studied **sufficiently**?*

I know that I've studied _____ when I

_____

_____

_____

11 Multiple ways of mistaking your blood relations. "Why is he doing it?"

"In some hard-to-measure way, you don't match up with his image of you. He knows he has a sister. He remembers everything about her. He knows you look like her and act like her and dress like her. He just doesn't think you *are* her."

13 "He knows his friends. He recognizes *you*. How can he know strangers, and not—"

"The Capgras sufferer almost always misidentifies his loved ones. A mother or father. A spouse. The part of his brain that recognizes faces is intact. So is his memory. But the part that **processes** emotional associations has somehow disconnected from them."

15 "I don't *seem* like his sister to him? What does he see when he looks at me?"

"He sees what he always sees. He just doesn't . . . feel you **sufficiently** to believe you."

17 A lesion that damaged only the senses of loved ones. "He's blind to me emotionally? And so he decides . . . ?" Dr. Hayes gave a chilling nod. "But his brain, his . . . *thinking* isn't damaged, is it? Is this the worst thing we'll have to face? Because if it is, I'm sure I can . . ."

The doctor lifted a palm. "The only thing certain in head injury is uncertainty."

19 "What's the treatment?"

"For now, we need to watch, see how he develops. There may be other issues. Secondary deficits. Memory, **cognition**, perception. Capgras sometimes shows spontaneous improvement. The best thing now is time and tests."

"He knows he has a sister. He just doesn't think you *are* her."

21 He used the phrase again, two weeks later.

. . .

She didn't believe Mark had any syndrome. His mind was just sorting out the chaos of injury. Every day left him more like his old self. A little patience, and the cloud would lift. He'd already come back from the dead; he would come back from this smaller loss. She was who she was; he'd *have* to see that, as he got clearer. She took the setback the way the therapists told her to, one baby step in front of the other. She worked on Mark, not pushing anything. She walked him down to the cafeteria. She answered his strange questions. She brought him copies of his two favorite truck-modding magazines. She encouraged and reinforced his memories, vaguely alluding to family history. But she had to pretend not to know too much about him. She tried once or twice; any claim of intimacy led immediately to trouble.

23 One day, he asked, "Can you at least find out how my dog is doing?" She promised to. "And for God's sake, would you please get my sister here, already? She probably hasn't even heard." She had learned enough by then to say nothing. ■

lesion damage to a part of someone's body caused by injury or illness
deficits problems that cause a decrease in some ability

Close Reading

Key Idea

What does Dr. Hayes help Karin understand about Mark?

Dr. Hayes helps Karin understand that Mark _____

_____

Make Inferences

Why can Mark recognize people other than Karin? Cite evidence.

Mark can recognize other people because they _____

_____

_____

_____

_____

React and Write

Reread paragraph 17. What do you think Karin would like to say in the last sentence? Explain your reasoning.

I think Karin is about to say that she is sure she can _____

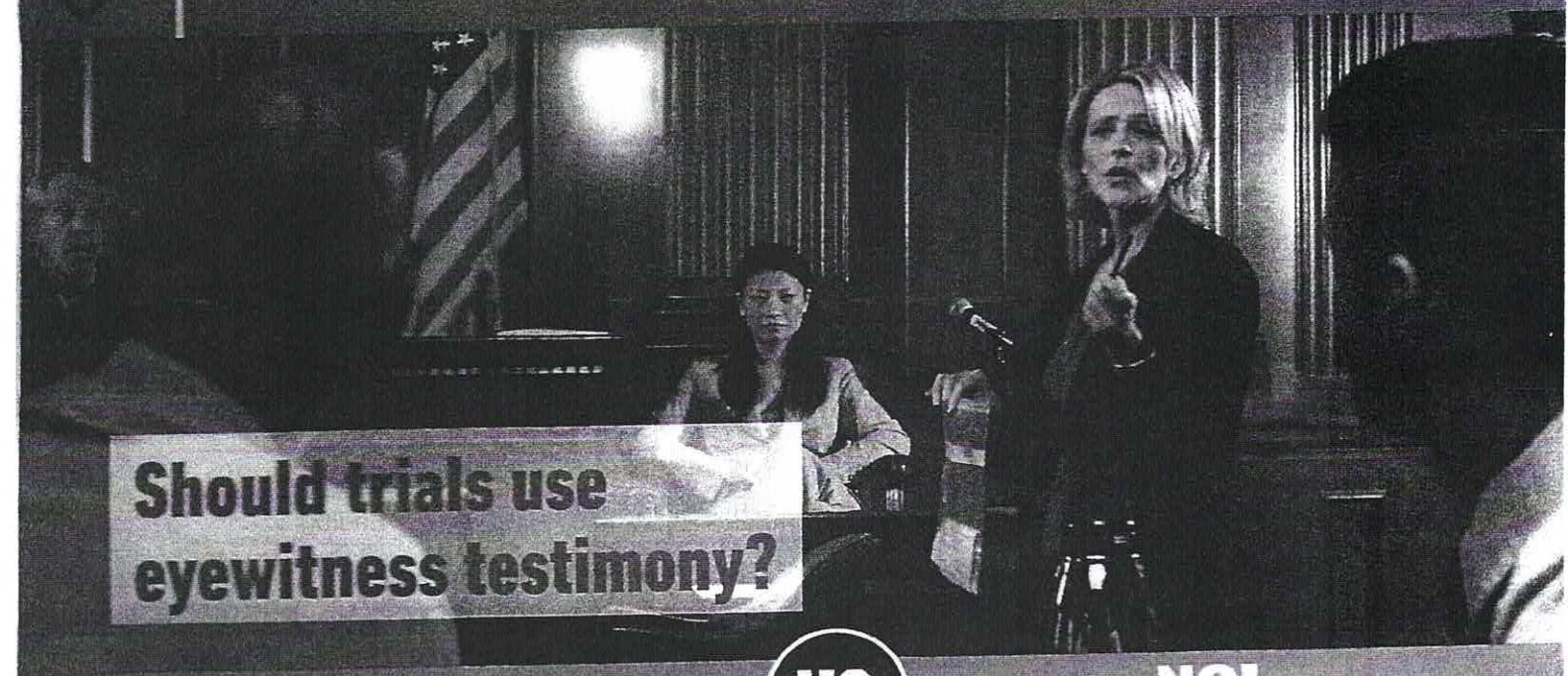
_____

_____

_____

STRATEGY TOOLKIT

Making Inferences
To make an inference, combine what the text says with what you already know.



Should trials use eyewitness testimony?

YES!

They Were There

Many trials include eyewitness accounts. When people see a crime happen, they must be allowed to describe what they saw. Sometimes that's the best evidence there is.

Those who are against eyewitness testimony argue that memory can be wrong. They point out that memory is not as foolproof as fingerprints or video evidence. However, perfect evidence like that doesn't always exist. And even when it does, it may not tell the full story. Juries need to hear every part of a story before convicting a suspected criminal.

Even though memories can be unreliable, sometimes they're the best clue that juries have about what happened and who was responsible. The key is making sure juries understand what affects memory. Preventing witnesses from telling their stories would be wrong. Instead, listeners should understand that some stories are stronger than others.

VS

NO!

Eyes Can Lie

Research shows that we can't always trust human memory. This is a major problem in trials where the person on trial could be facing life in prison or, even worse, the death penalty. We should not use eyewitness testimony to make these decisions.

Many factors make memory less reliable. If the crime took place months or years ago, witnesses are less likely to remember details correctly. When people witness crimes from far away, they may miss important details. Additionally, when people are under extreme stress, they are less likely to remember correctly. Witnessing a crime or being a victim of one can create a lot of stress.

More than 70 percent of people who went to prison but were later proven innocent were judged guilty because of eyewitness accounts. Faulty eyewitness accounts can send an innocent person to jail!

Identify Reasons

A strong argument supports a claim with **reasons**, or statements telling readers why the claim should be believed. A reason should be:

- **Clear.** Is it easy to understand?
- **Relevant.** Does it relate to the claim?
- **Logical.** Does it make sense?

One reason that supports my claim is ____.

I also think this because ____.

TREE

- **T**hesis statement
- **R**easons
- **E**vidence
- **E**nding

Analyze Arguments

Identify a claim for each side. Then identify a reason and explain how it supports the claim.

Claim for Yes	Claim for No
Reason	**Reason**
How Reason Supports the Claim	**How Reason Supports the Claim**

Plan and Present a Debate

Take notes and prepare for the debate.

Opening Statement: Trials (should/should not) use eyewitness testimony because . . .

Claim: _____

Reason: _____

Evidence: _____

Possible counterclaims: _____

Closing Statement

Textbook: Holt McDougal Mathematics Pre Algebra

8th Grade Math

All workouts should be included. Answers only will not be accepted.

Assignment 1 - Read pages 454-456. Complete 1-21 on page 456. Pay attention to systems that have equal slopes or that consist of 2 equations of the same line.

Assignment 2 - Read pages 460-462. Complete 1-48 starting on page 463.

Assignment 3 - Define the vocabulary words on page 728. Use each word in a sentence.

Assignment 4 - Read pages 687-688. Complete problems 1-30 on pages 689-690.

Assignment 5 - Read pages 692-693. Complete problems 1-33 on pages 694-696.

Assignment 6 - Read pages 698-700. Work problems 1-26 on pages 701-702.

Assignment 7 - Read pages 705-707. Complete problems 1-32 on pages 707-709.

Assignment 8 - Read pages 710-711. Complete problems 1-23 on pages 712-714.

Assignment 9 - Read pages 717-719. Complete problems 1-24 on pages 720-721.

Assignment 10 - Read pages 723-725. The chart on page 725 provides a summary of transformations. Complete problems 128 on pages 725-727.

There is also a course set up in Edgenuity that covers the same topics as the textbook assignments.

If you need assistance, the following websites can be helpful:

Mathisfun.com
Mathhelp.com
Math.com
KhanAcademy.com

Order of Operations

To avoid having different results for the same problem, mathematicians have agreed on an order of operations when simplifying expressions that contain multiple operations.

1. Perform any operation(s) inside grouping symbols. (Parentheses, brackets above or below a fraction bar)
2. Simplify any term with exponents.
3. Multiply and divide in order from left to right.
4. Add and subtract in order from left to right.

One easy way to remember the order of operations process is to remember the acronym PEMDAS or the old saying, **"Please Excuse My Dear Aunt Sally."**

P - Perform operations in grouping symbols
E - Simplify exponents
M - Perform multiplication and division in order from left to right
D
A - Perform addition and subtraction in order from left to right
S

Example 1

$2 - 3^2 + (6 + 3 \times 2)$
$2 - 3^2 + (6 + 6)$
$2 - 3^2 + 12$
$2 - 9 + 12$
$-7 + 12$
$= 5$

Example 2

$-7 + 4 + (2^3 - 8 \div -4)$
$-7 + 4 + (8 - 8 \div -4)$
$-7 + 4 \div (8 - -2)$
$-7 + 4 \div 10$
$-3 \div 10$
$= 7$

Order of Operations

Evaluate each expression. Remember your order of operations process (PEMDAS).

1. $6 + 4 - 2 \cdot 3 =$

2. $(-2) \cdot 3 + 5 - 7 =$

3. $15 \div 3 \cdot 5 - 4 =$

4. $29 - 3 \cdot 9 + 4 =$

5. $20 - 7 \cdot 4 =$

6. $4 \cdot 9 - 9 + 7 =$

7. $50 - (17 + 8) =$

8. $(12 - 4) \div 8 =$

9. $12 \cdot 5 \div 6 \div 6 =$

10. $18 - 4^2 + 7 =$

11. $3(2 \div 7) - 9 \cdot 7 =$

12. $3 + 8 \cdot 2^2 - 4 =$

13. $16 \div 2 \cdot 5 \cdot 3 \div 6 =$

14. $12 \div 3 - 6 \cdot 2 - 8 \div 4 =$

15. $10 \cdot (3 - 6^2) + 8 \div 2 =$

16. $6.9 - 3.2 \cdot (10 \div 5) =$

17. $32 \div [16 \div (8 \div 2)] =$

18. $[10 \div (2 \cdot 8)] \div 2 =$

19. $180 \div [2 + (12 \div 3)] =$

20. $\frac{1}{4}(3 \cdot 8) \div 2 \cdot (-12) =$

21. $\dfrac{5 + [30 - (8 - 1)^2]}{11 - 2^2} =$

22. $\dfrac{3[10 - (27 \div 9)]}{4 - 7} =$

23. $5(14 - 39 - 3) \div 4 \cdot 1/4 =$

24. $[8 \cdot 2 - (3 \div 9)] + [8 - 2 \cdot 3] =$

25. $162 \div [6(7 - 4)^2] \div 3 =$

Operations with Signed Numbers

Adding and Subtracting Signed Numbers

Adding Signed Numbers

Like Signs	Different Signs
Add the numbers & carry the sign	Subtract the numbers & carry the sign of the larger number
(+) + (+) = + (+3) + (+4) = +7	(+) + (–) = ? (+3) + (–2) = +1
(–) + (–) = – (– 2) + (– 3) = (– 5)	(–) + (+) = ? (–5) + (+ 3) = –2

Subtracting Signed Numbers

Don't subtract! Change the problem to **addition** and change the sign of the **second** number. Then use the addition rules.

(+9) – (+12) = (+9) + (– 12)	(+4) – (–3) = (+4) + (+3)
(– 5) – (+3) = (– 5) + (– 3)	(–1) – (– 5) = (–1) + (+5)

Simplify. ***Do not use a calculator for this section.***

1. 9 + -4 =
2. -8 + 7 =
3. -14 – 6 =
4. -30 + -9 =
5. 14 – 20 =
6. -2 + 11 =
7. 20 – - 6 =
8. 7 – 10 =
9. -6 – -7 =
10. 5 – 9 =
11. -8 – 7 =
12. 1 – -12 =

Multiplying and Dividing Signed Numbers

If the signs are the same, the answer is *positive*

If the signs are different, the answer is *negative*

Like Signs	Different Signs
(+)(+) = + (+3)(+4) = +12	(+)(−) = − (+2)(−3) = −6
(−)(−) = + (−5)(−3) = + 15	(−)(+) = − (−7)(+1) = −7
(+) / (+) = + (+3) / (+4) = +12	(+) / (−) = − (+2) / (−3) = −6
(+) / (+) = + (+3) / (+4) = +12	(−) / (+) = − (−7) / (+1) = −7

Simplify. ***Do not use a calculator for this section.***

1. (-5)(-3) =

2. $\frac{-6}{2}$ =

3. (2)(4) =

4. $\frac{-12}{-4}$ =

5. (-1)(-5) =

6. $\frac{-16}{8}$ =

7. $\frac{-7}{-1}$ =

8. (3) (-4) =

9. $\frac{8}{-4}$ =

10. (-2)(7) =

11. $\frac{-20}{-1}$ =

12. (2)(-5) =

Rounding Numbers

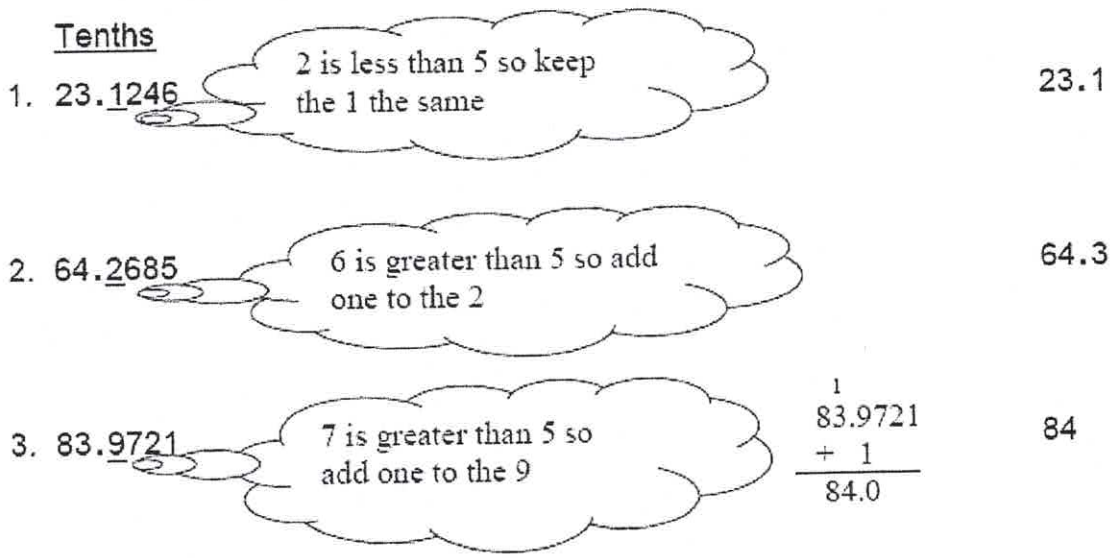
Step 1: Underline the place value in which you want to round.

Step 2: Look at the number to the right of that place value you want to round.

Step 3: If the number to the right of the place value you want to round is less than 5, keep the number the same and drop all other numbers.

If the number to the right of the place value you want to round is 5 or more, round up and drop the rest of the numbers.

Example: Round the following numbers to the tenths place.



Round the following numbers to the **tenths** place.

1. 18.6231 _____
2. 25.0543 _____
3. 3.9215 _____
4. 36.9913 _____
5. 15.9199 _____
6. 0.2658 _____
7. 100.9158 _____
8. 19.9816 _____
9. 17.1083 _____
10. 0. 6701 _____

Evaluating Expressions

Example
Evaluate the following expression when x = 5

Rewrite the expression substituting 5 for the x and simplify.

a. $5x =$ $5(5) = 25$
b. $-2x =$ $-2(5) = -10$
c. $x + 25 =$ $5 + 25 = 30$
d. $5x - 15 =$ $5(5) - 15 = 25 - 15 = 10$
e. $3x + 4 =$ $3(5) + 4 = 19$

Evaluate each expression given that: $x = 5$ $y = -4$ $z = 6$

1. $3x$

2. $2x^2$

3. $3x^2 + y$

4. $2(x + z) - y$

5. $y + 4$

6. $5z - 6$

7. $xy + z$

8. $2x + 3y - z$

Evaluate each expression given that: $x = 5$ $y = -4$ $z = 6$

9. $5x - (y + 2z)$

10. $\frac{xy}{2}$

11. $x^2 + y^2 + z^2$

12. $2x(y + z)$

13. $5z + (y - x)$

14. $2x^2 + 3$

15. $4x + 2y - z$

16. $\frac{yz}{2}$

Combining Like Terms

What is a ***term***? The parts of an algebraic expression that are separated by an addition or subtraction sign are called ***terms***.
The expression $4x + 2y - 3$ has 3 terms.

What are ***like terms***? Terms with the same variable factors are called ***like terms***.
$2n$ and $3n$ are **like terms**, but $4x$ and $3y$ are not like terms because their variable factors x and y are different.

To simplify an expression, you must combine the like terms.

Examples: Simplify

1. $5x + 8x$
   $5x + 8x = (5 + 8)x = 13x$

2. $3y - 6y$
   $3y - 6y = (3 - 6)y = -3y$

3. $3x + 4 - 2x + 3$
   $3x - 2x + 4 + 3 = (3 - 2)x + 4 + 3 = x + 7$

4. $2b + 5c + 3b - 6c$
   $2b + 3b + 5c - 6c = (2+3)b + (5 - 6)c = 5b - c$

Practice: Simplify each expression

1. $6n + 5n$
2. $25b + 15b$
3. $37z + 4z$
4. $x - 5x$
6. $3n + 1 - 2n + 8$
6. $4f + 5f - 6 + 8$
7. $7t + 9 - 4t + 3$
8. $2k + 4 - 8k - 1$
9. $4r + 3r + 6y - 2y$
10. $8g + 9h - 4g - 5h$
11. $2m + 3n - 4m + 5n$
12. $a + 5b - 2a + 9b$

Name_____ Per_____ Date_____

Order of Operations 4

1. $(12)(3)$

2. $72+5\cdot 2$

3. $13-4\cdot 2+5$

4. $(2+5)(3)$

5. $9-(3)2+20$

6. $15\cdot 5$

7. $13\times 2+8$

8. $25-2(1+8)$

9. $(10)(7)-12$

10. $13(4)-10$

11. $6+3\times 4$

12. $(18-6)+2$

13. $12+8+5-6$

14. $15\cdot 3\div 5\cdot 2$

Bonus $10+(2+5)$

b. Finding slope from two points

Find the slope of the line through each pair of points.

1) $(19, -16), (-7, -15)$

2) $(1, -19), (-2, -7)$

3) $(-4, 7), (-6, -4)$

4) $(20, 8), (9, 16)$

5) $(17, -13), (17, 8)$

6) $(19, 3), (20, 3)$

7) $(3, 0), (-11, -15)$

8) $(19, -2), (-11, 10)$

c. Finding slope from an equation

Find the slope of each line.

1) $y = -\frac{5}{2}x - 5$

2) $y = -\frac{4}{3}x - 1$

3) $y = -x + 3$

4) $y = -4x - 1$

5) $2x - y = 1$

6) $x + 2y = -8$

7) $8x + 3y = -9$

8) $4x + 5y = -10$

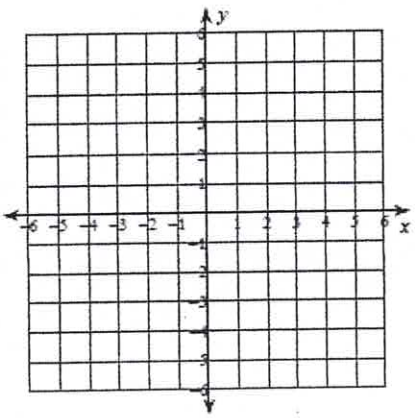
9) $x - y = -2$

10) $4x - 3y = 9$

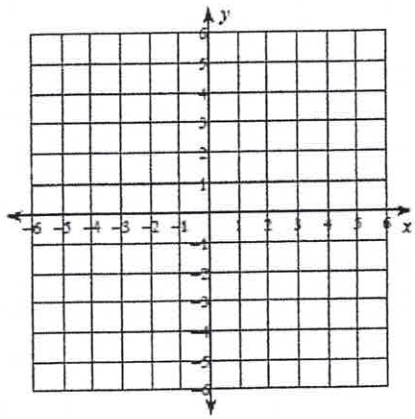
d. Graphing lines using slope-intercept form

Sketch the graph of each line.

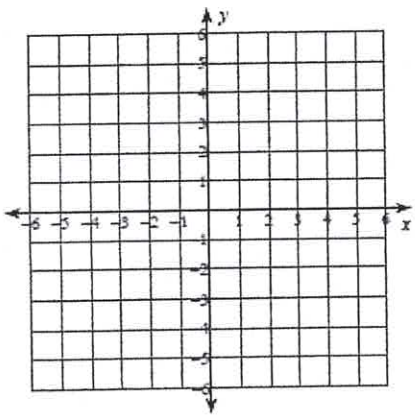
1) $y = \frac{7}{2}x - 2$



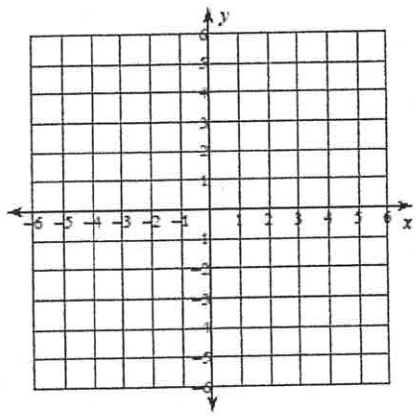
2) $y = -6x + 3$



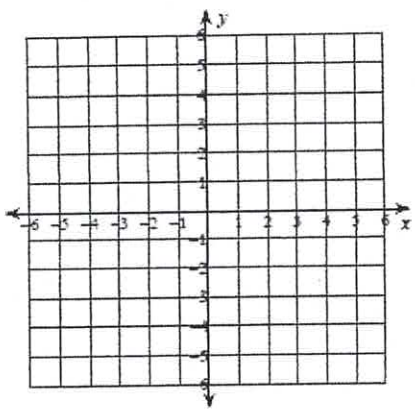
3) $y = -5$



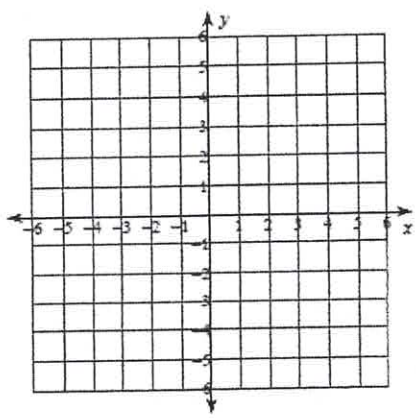
4) $y = \frac{6}{5}x + 1$



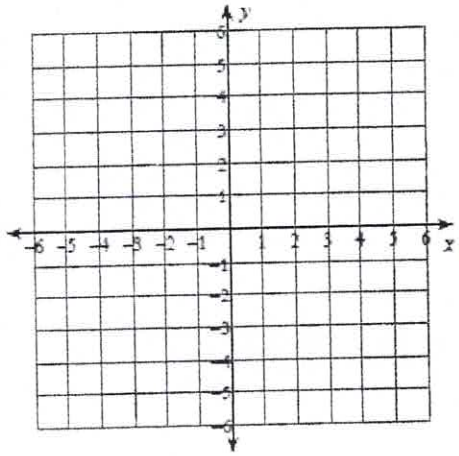
5) $y = \frac{1}{4}x + 2$



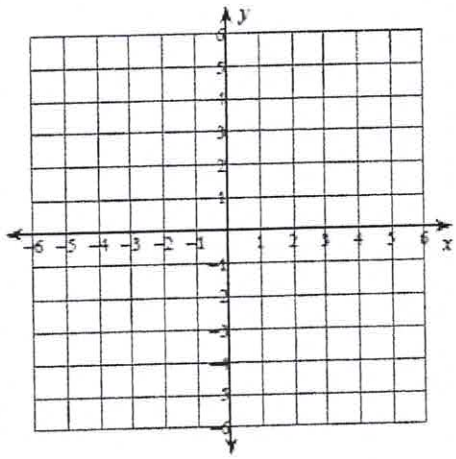
6) $x = 5$



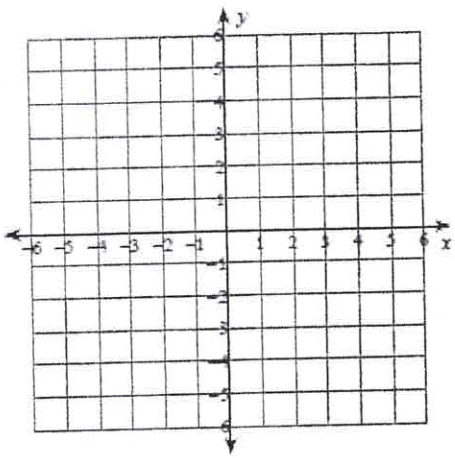
7) $y = \frac{5}{3}x$



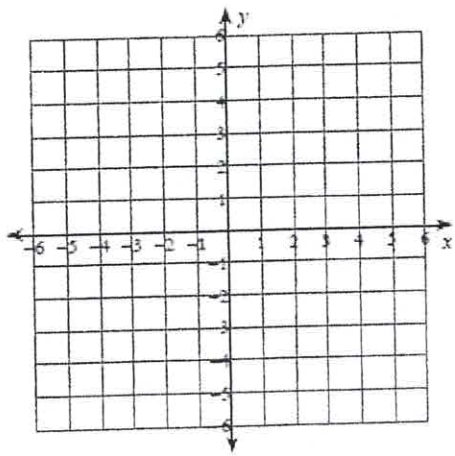
8) $x = 0$



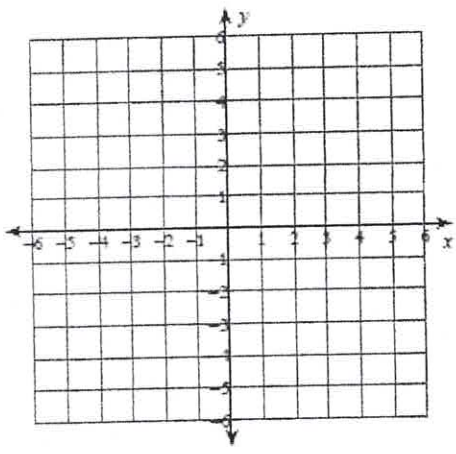
9) $y = -\frac{1}{3}x + 3$



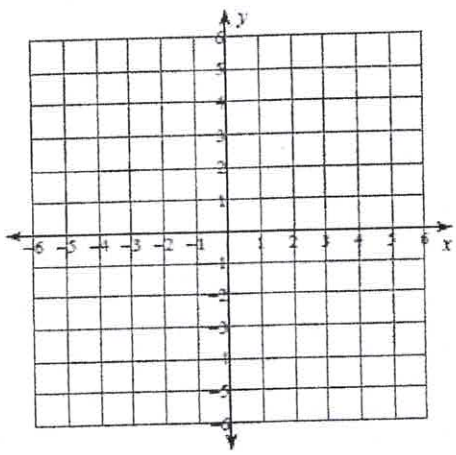
10) $y = \frac{1}{5}x - 4$



11) $y = \frac{1}{2}x - 2$



12) $y = 2x + 5$



e. Writing linear equations

Two utility companies sell electricity in units of kilowatt-hours. The cost of electricity for company P is shown in the table. The cost of electricity for company M can be found by using the equation shown, where y represents the total cost in dollars for x kilowatt-hours of electricity.

Electricity Costs

Company P

Number of Kilowatt-hours	Total Cost (dollars)
1,250	150.00
1,650	198.00

Company M

$y = 0.15x$

- Use the information provided to find the unit rate, in dollars per kilowatt-hour, for each company. Show your work or explain your answers.
- Find the total cost, in dollars, of buying 2,375 kilowatt-hours of electricity from the **least** expensive company.

Mark's Earnings

- Mark earns $60 for mowing 3 lawns.
- Mark earns $300 for mowing 15 lawns.

For both Larry and Mark, the number of dollars earned is proportional to the number of lawns mowed.

Which statement correctly compares the amount of money Larry and Mark each earn per lawn?

Ⓐ Larry earns $2 more than Mark earns per lawn.

Ⓑ Larry earns $5 less than Mark earns per lawn.

Ⓒ Larry earns $10 more than Mark earns per lawn.

Ⓓ Larry earns $15 less than Mark earns per lawn.

Write the slope-intercept form of the equation of each line.

1) $3x - 2y = -16$

2) $13x - 11y = -12$

3) $9x - 7y = -7$

4) $x - 3y = 6$

5) $6x + 5y = -15$

6) $4x - y = 1$

7) $11x - 4y = 32$

8) $11x - 8y = -48$

Write the standard form of the equation of the line through the given point with the given slope.

9) through: $(1, 2)$, slope $= 7$

10) through: $(3, -1)$, slope $= -1$

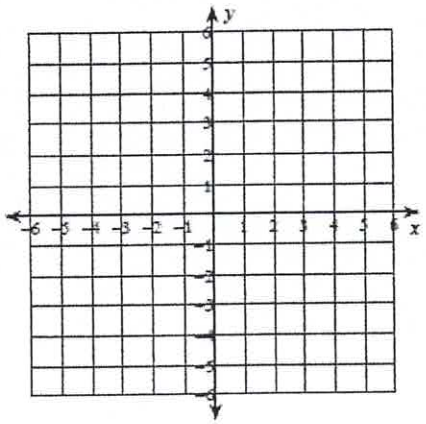
11) through: $(-2, 5)$, slope $= -4$

12) through: $(3, 5)$, slope $= \frac{5}{3}$

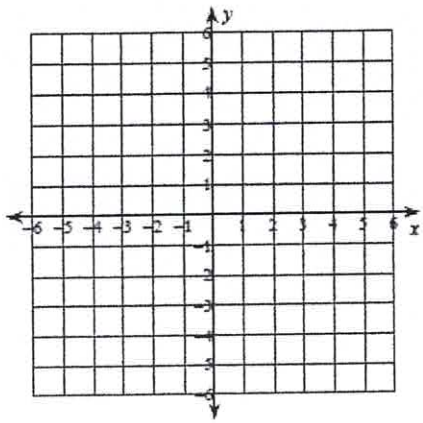
f. Graphing linear inequalities

Sketch the graph of each linear inequality.

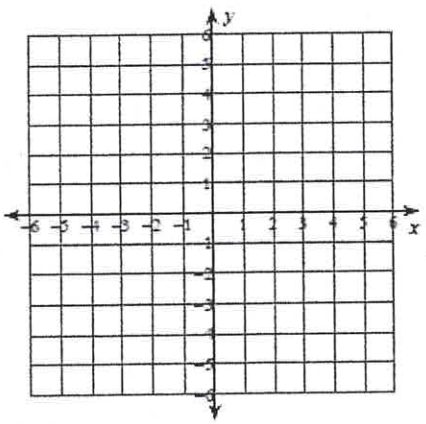
1) $y \geq -3x + 4$



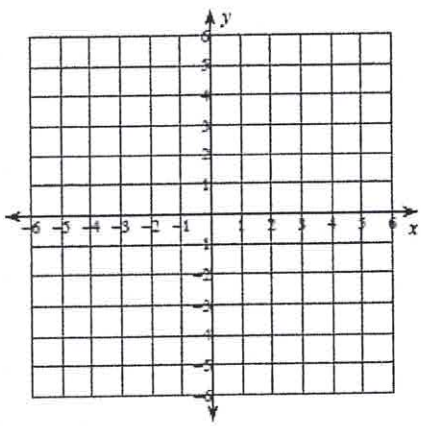
2) $y \leq \frac{3}{5}x - 5$



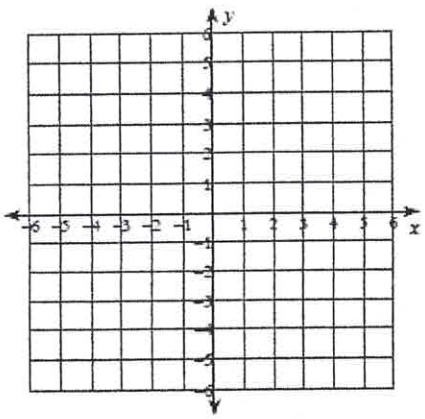
3) $y > -x - 5$



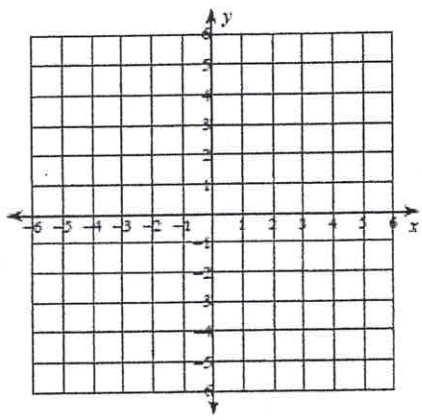
4) $y > -4$



5) $y > 2x - 5$



6) $y \geq \frac{7}{4}x + 2$



Solve each equation.

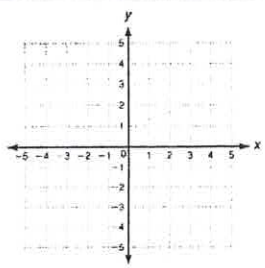
1. $-x-9=x+3$	2. $7r-4+2r=12+7r$
3. $-5-4(n+3)=-19-3n$	4. $-3(3-k)=3(k+3)$

Solve for the indicated variable.

5. $d=rt$ for r	6. $ax+by+c=0$ for y
7. $A=\frac{e+f}{2}$ for e	8. $3k+7n=p$ for k

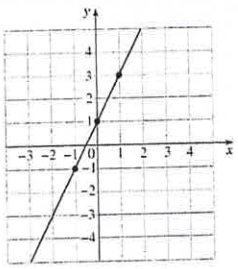
Use intercepts to graph the line described by the equation.

9. $4x+3y=-12$



Find the slope of the line.

10.



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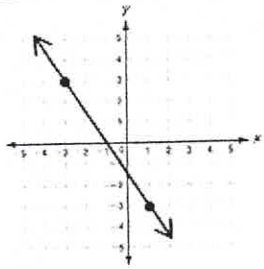
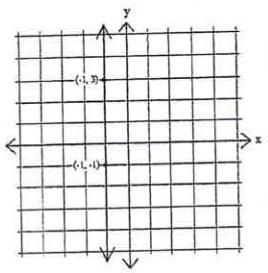


12.



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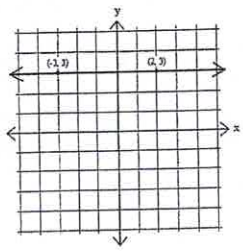


Find the slope of the line that contains each pair of points.

14. $(3,10)$ and $(2,5)$

15. $(12,-2)$ and $(0,6)$

Find the slope of the line described by each equation.

16. $5x+4y=40$

17. $7x+42=2y$

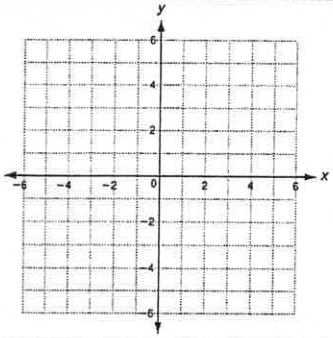
Write the equation that describes each line in slope-intercept form.

18. slope = 8; y-intercept = -6

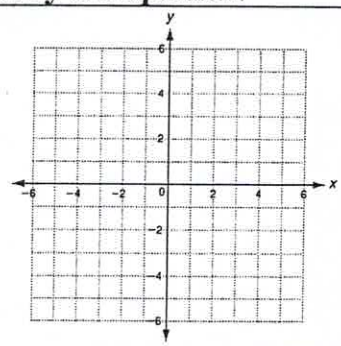
19. slope = $-\frac{1}{2}$, $(8,-1)$ is on the line

Write each equation in slope-intercept form. Then graph the line described by the equation.

20. $y + x = 3$



21. $5x - 2y = 10$



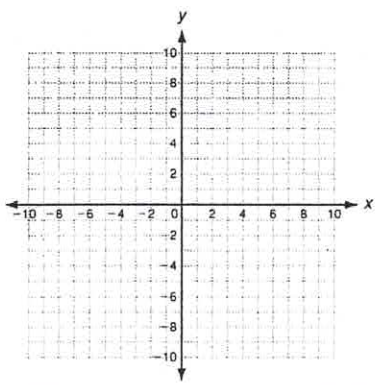
Write an equation in point-slope form for the line with the given slope that contains the given point.

22. slope = 4; (5, 6)

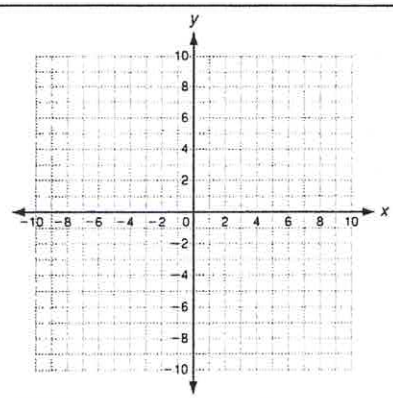
23. slope = –3; (7, –2)

Graph the line described by each equation.

24. $y - 3 = \frac{2}{3}(x + 1)$

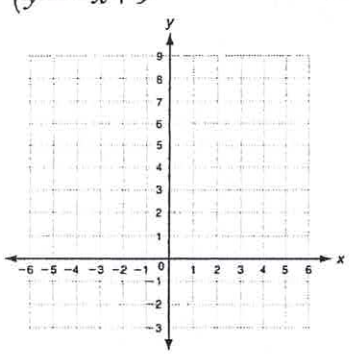


25. $y + 4 = -3(x - 4)$

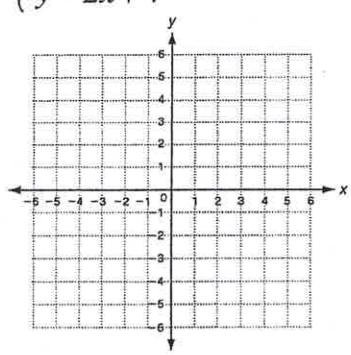


Solve each system by graphing.

26. $\begin{cases} y = 2x + 3 \\ y = -x + 9 \end{cases}$ Solution: _____



27. $\begin{cases} y = -3x + 4 \\ y = 2x + 4 \end{cases}$ Solution: _____



Solve each system by substitution.

28. $\begin{cases} y = 3x + 4 \\ y = 4x + 5 \end{cases}$

29. $\begin{cases} -2x + 2y = 4 \\ 4x + 3y = -15 \end{cases}$

Solve each system by elimination.

30. $\begin{cases} x + 6y = -8 \\ 7x + 2y = 24 \end{cases}$

31. $\begin{cases} 9x + 6y = 12 \\ -18x - 8y = -4 \end{cases}$

Evaluate each expression for the given value(s) of the variable(s).

32. $(3t)^{-3}$ for $t = 2$

33. $4x^{-2}y^{0}$ for $x = 7$ and $y = -4$

Add or subtract.

34. $12x^2 + 11y^2 - 5x^2$

35. $(-8k^2 + 5) - (3k^2 + 7k - 6)$