

Webster County Schools

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Office of Curriculum

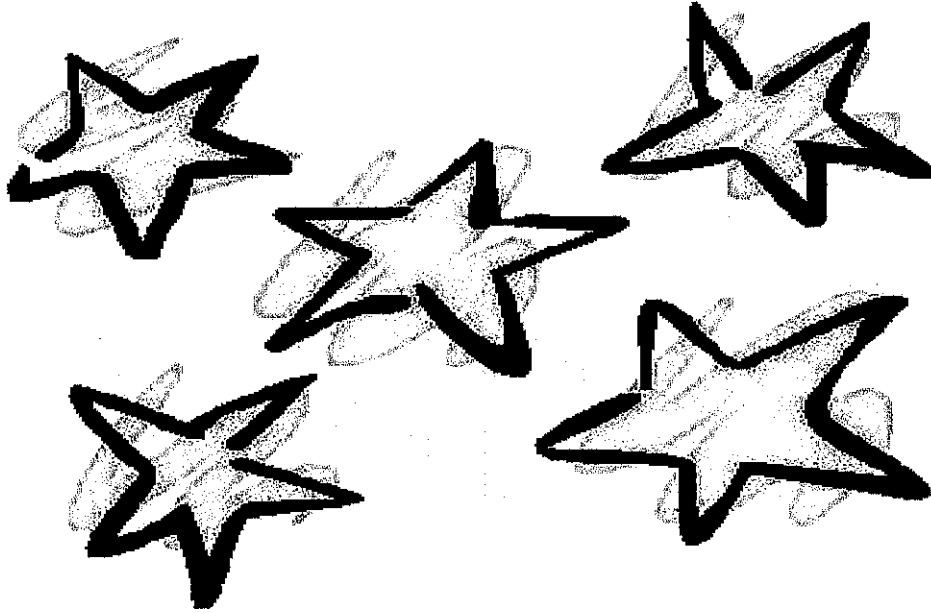
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8th Grade

Packet 6

8th Grade ELA



To Proficiency and
Beyond!

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- Glossary of Academic Terms
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8th grade English Glossary of Terms

Term	Definition	Example
Elaborate	To explain with more details	
Contribute	To add to or help out	
Explicit	Directly stated	
Theme	A unifying, recurring idea or truth related in a text	
Figurative Language	Refers to words and phrases that are not intended to be understood literally	
Simile	A comparison of two unlike things using the words like or as.	
Metaphor	A comparison of two unlike things without the words like or as.	
Personification	When an object or item is given human characteristics or qualities.	
Onomatopoeia	A word that makes the sound it states.	
Alliteration	The repetition of consonant sounds at the beginning of a series of words in a row.	
Idiom	n. a common saying that has a figurative meaning rather than a literal one.	
Tone	The overall attitude toward the them and audience that is implied in a literary text	
Mood	The feeling or atmosphere a text creates within the reader.	
Foreshadowing	A literary device in which a writer gives an advance hint of what is to come later in the story	
Complex Character	A Complex character : * undergoes an important change as the plot unfolds. *The changes he or she experiences occur because of his or her actions or	

	<p>experiences in the story.</p> <ul style="list-style-type: none"> *Changes in the character may be good or bad. *The character is highly developed and complex, meaning they have a variety of traits and different sides to their personality. *Some of their character traits may create conflict in the character. *He or she displays strengths, weaknesses, and a full range of emotions. *He or she has significant interactions with other characters. *He or she advances the plot or develops a major theme in the text. 	
Motivation	<p>The reason behind a character's behaviors and actions throughout a story. Motivations are intrinsic needs: they might be external needs and relate to survival, but they might also be psychological or existential needs, such as love or professional achievement.</p>	
Conflict	<p>Any struggle the protagonist faces and that moves the plot of the story:</p> <ul style="list-style-type: none"> Man vs. Self Man vs. Man Man vs. Society Man vs. Nature Man vs. Technology Man vs. Fate (or the Supernatural) 	
Interact	<p>Interact--action, effect, or influence of the plot elements on characters or characters on other character</p>	

Plot	The events of a story: (introduction, rising action, climax, falling action, resolution)	
Antagonist	the character that opposes the leading character	
Protagonist	Leading/Main character	

TEXT ANNOTATIONS

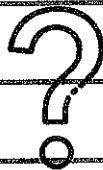
USE TEXT ANNOTATIONS TO HELP YOU READ ACTIVELY AND REMEMBER KEY IDEAS. READERS MAKE NOTES OR HIGHLIGHT IMPORTANT DETAILS WHILE THEY ARE READING.

SYMBOLS

USE IT FOR...



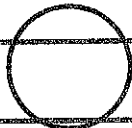
Important information or something that says "wow!"



Information that is confusing or that makes you question



Parts of the passage you like



Circle any unknown words



Mark the main idea of the passage



Mark any evidence you find to support your main idea or conclusion



Mark what you agree and/or disagree with in the passage

8th grade Vocabulary Practice Items

1. Read the sentences.

The road from the post-office came directly by our door, crossed the farmyard, and curved round this little pond, beyond which it began to climb the gentle swell of unbroken prairie to the west. There, along the western sky-line it skirted a great cornfield, much larger than any field I had ever seen.

Which meaning of **skirted** is used in the sentence?

- A. missed by a narrow margin
- B. went around rather than across
- C. bordered or formed the edge of
- D. avoided because of unpleasantness

2. Read the sentences.

North of the house, inside the ploughed firebreaks, grew a thickset strip of box-elder trees, low and bushy, their leaves already turning yellow. This hedge was nearly a quarter of a mile long, but I had to look very hard to see it at all. The little trees were insignificant against the grass. It seemed as if the grass were about to run over them, and over the plum patch behind the sod chickenhouse.

What is the meaning of the word **insignificant** as it is used in the text?

- A. unimportant
- B. unnoticeable
- C. unreachable
- D. unsatisfactory

3. Read this part of a sentence.

... one would float off into them, like the tawny hawks which sailed over our heads making slow shadows on the grass.

Which word is similar in connotation to **sailed** as it is used in the sentence?

- A. fluttered
- B. glided
- C. passed
- D. flapped

4. Read the sentences.

When a farmer tore out the sod and then walked away, leaving the land naked, however, that barren patch posed a threat to neighbors. It could not revert to grass, because the roots were gone. It was empty, dead, and transient.

What is the meaning of **revert** as it is used in the text?

- A. abandon
- B. destroy
- C. to go back
- D. take the place of

5. What TWO characteristics of prairie fires are suggested by the statement that they "took a great gulp of grass"?

- A They happened suddenly and all at once.
- B They destroyed a large area of grass.
- C The smoke made breathing difficult.
- D The grass hindered their progress.
- E They were fueled by the grass.

6. Read the sentence.

In turn, the grass nurtured pin-tailed grouse, prairie chickens, cranes, jackrabbits, snakes, and other creatures that got their water from foraging on the native turf.

What does the word **nurtured** mean as it is used in this sentence?

- A cherished
- B raised
- C supported
- D trained

7. Read the following phrase.

. . . there is something about travel as a process that a wheels-up, wheels-down airplane ride dilutes somewhat.

What does the word **dilutes** mean as it is used in the phrase?

- A. appeases
- B. devalues
- C. enhances
- D. stresses

8. In the text, the author says that "a plane is the closest the average plebe is going to get" to teleporting.

What does the word plebe mean as it is used in the passage?

- A. location
- B. pace
- C. person
- D. vehicle

9. Read the following phrase.

. . . his body was inhabited by the ghost of a wicked, old money-lender, who had died some years ago. Which word could replace inhabited as it is used in the phrase?

- A. birthed
- B. created
- C. demanded
- D. occupied

10. Read the following lines.

Then the little children in the village made him very angry. Luckily, the Law of the Jungle had taught him to keep his temper, for in the jungle life and food depend on keeping your temper;

What is the meaning of the phrase "Law of the Jungle" as used in the text?

- A. the leader of the jungle
- B. the jungle where laws are kept
- C. the customs of the jungle animals
- D. a rule book for animals in the jungle

11. Read the excerpt.

Then the little children in the village made him very angry. . . . only the knowledge that it was unsportsmanlike to kill little naked cubs kept him from picking them up and breaking them in two.

What does the author's metaphor reveal about Mowgli's feelings toward the little children?

- A. Mowgli feels that the little children are acting immature.
- B. Mowgli feels that the little children are small and unprotected.
- C. Mowgli feels that the little children are angry and a waste of his time.
- D. Mowgli feels that the little children are not playing fairly and acting like bears.

12. Read the excerpt.

And Mowgli had not the faintest idea of the difference that caste makes between man and man. When the potter's donkey slipped in the clay pit, Mowgli hauled it out by the tail, and helped to stack the pots for their journey to the market at Khanhiwara. That was very shocking, too, for the potter is a low- caste man, and his donkey is worse.

Which two phrases mean the same as caste as it is used in the excerpt?

- A. an occupation as a potter
- B. an occupation as a farmer
- C. a social ranking of animals and people
- D. a physical ranking of animals and people
- E. a group of people that share common cultural features

13. Read the sentence from paragraph 2 of "Hard Facts."

Modern-day police often use teeth to help identify victims of accidents and foul play.

What does the word **foul** mean in the sentence?

- A. unpleasant
- B. out-of-bounds
- C. make certain
- D. wrongful

14. Read the following sentence.

Scientist Jared Diamond shocked the world with his article "The Worst Mistake in the History of the Human Race." Diamond said that the invention of agriculture, supposedly our most important step toward a better life, was actually a catastrophe from which humans have never recovered.

How does the author's inclusion of the hyperbole "**shocked the world**" impact the tone of the paragraph?"

- A. It creates a serious tone.
- B. It creates a regretful tone.
- C. It creates an energetic tone.
- D. It creates an amazed tone.

15. Read these sentences from paragraph 3 of "Hard Facts."

Teeth, however, are not indestructible. All are susceptible to decay.

What does the word **susceptible** mean as it is used in the second sentence?

- A. exposed
- B. immune
- C. numb
- D. resistant

16. Which quotation is figurative language showing respect for the salmon?

- A. "Such a fish!"
- B. ". . . shining silver from head to tail. . . ."
- C. ". . . with a grand hooked nose and grand curling lip, and a grand bright eye. . . ."
- D. "Surely he must be the salmon, the king of all fish."

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The salmon looked at him full in the face, and then went on without minding him, with a swish or two of his tail which made the stream boil again.

What is the meaning of the word **boil** as it is used in the context of the sentence?

- A. being vibrant
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18. Read the sentence.

From the open gash, a tsunami of molasses gushed out at 35 miles an hour, overtaking trucks and wagons in its way.

What is the meaning of the word **tsunami** as it is used in the sentence?

- A. a useful amount
- B. an unknown amount
- C. a measured amount
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19. Read the sentence.

At 12:30 that afternoon, the tank rumbled and groaned and then popped its rivets, sending metal bolts zinging past Anthony and Maria.

What is the author attempting to emphasize in the passage when she uses the phrase "**sending metal bolts zinging**"?

- A. contradictions
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However, once the fireboats arrived and pumped salt water from the harbor onto the mess, some progress was made. The brine dissolved the syrup and made the molasses thin enough to flush down the sewers.

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Source: Engage NY Released items 2019 and 2017
Read this article. Then answer the questions that follow.

Excerpt from *River of Dreams* by Hudson Talbott

This excerpt is from a book about the history of the Hudson River.

- 1 By the twentieth century, New York City had long since reached its destiny of becoming the most powerful city in America. In less than 300 years it had grown from a tiny Dutch outpost in the wilderness to the business capital of the world. It was a city built on dreams.
- 2 But it was made out of bricks and cement that had come from the banks of the Hudson. The river which had fed all those dreams was now fading into the background. New York didn't seem to need the river anymore, except as a sewer. And that's what it became.
- 3 Industry on the river had made some New Yorkers filthy rich. But it had just made the river filthy. Garbage, factory waste, plant chemicals and the raw sewage of the cities and towns along its banks were dumped directly into the river. The water turned greenish brown, except by the GM plant, where it turned red or yellow or whatever color they were painting the cars that day.
- 4 The fishing industry collapsed. The few fish that survived were too poisonous to eat. Smog from the factory smoke and dust from the cement plants blanketed the valley. And it was all legal.
- 5 Most people don't start out with dreams of polluting a river. But it was often the result of people chasing their dreams of wealth with little care of how they reached it. The Hudson Valley had always drawn them.
- 6 But now there were other dreamers in the valley, with their own dreams of wealth. They dreamed of the wealth of wildlife in a healthy forest, the abundance of fish in oxygen-rich water, and the great fortune of living in a beautiful river valley.

7 So perhaps it was a matter of time before the two types of dreamers would meet each other—in court.

8 In 1963, Con Edison, New York City's power company, proposed a plan for constructing the largest hydroelectric pumping station ever built. The plan called for carving out a gigantic hole in the side of majestic Storm King Mountain on the Hudson River.

9 But then they met Franny Reese. Franny was a longtime valley resident with a simple point to make: the mountain could not speak for itself. If she didn't speak for it, who would?

10 Franny and a group of like-minded people founded Scenic Hudson and took on the power company in a landmark court case. Con Ed challenged the right of private citizens to participate, but the court sided with the citizens, in the ruling now known as the Scenic Hudson Decision.

11 After dragging out the case for seventeen years, Con Ed finally gave up and Storm King survived unblemished. It was the beginning of the environmental movement in this country, and once again, the Hudson Valley was the birthplace.

12 More and more people joined the movement as they realized how much difference each of us can make.

13 The love of their land was still alive in the hearts of Americans, and now that it was aroused again, things began to change.

14 Many new laws and new citizens' groups have been inspired by those early heroes of the environment, and their work has begun to bring the Hudson back to life.

15 The Mahicans called it "The River That Flows Both Ways." Slowly we are learning that taking care of the river is the only way that the river can take care of us.

16 Fifty years have passed since I dreamed of going to New York to see the river that shares my name, and thirty-five years since that dream came true. I live in the Hudson Valley now, grateful to all those who came before

me, following their dreams to this river, building this nation, sharing its beauty, securing its future.

17 It's now my turn to help in keeping the river of dreams flowing, for all those dreamers yet to come.

1. As used in paragraph 2, what does the phrase "fading into the background" mean?

- A. disappearing from view
- B. losing its importance in people's minds
- C. moving farther and farther from the city
- D. remaining important only to those who value nature

2. Which claim from the article is least supported?

- A. "New York didn't seem to need the river anymore, except as a sewer. And that's what it became." (paragraph 2)
- B. "Industry on the river had made some New Yorkers filthy rich." (paragraph 3)
- C. "But it had just made the river filthy." (paragraph 3)
- D. "But now there were other dreamers in the valley, with their own dreams of wealth." (paragraph 6)

3. What is the role of paragraph 7 in the organization of the article?

- A. It compares the two groups of dreamers.
- B. It concludes the part of the article about industry.
- C. It introduces the part of the article about activists.
- D. It transitions to the part of the article where change occurs.

4. What does "unblemished" mean as used in paragraph 11?

- A. unaware
- B. unknown
- C. unharmed
- D. unstable

5. How does the idea expressed in paragraph 15 relate to the article?

- A. There are two main ways that the river can be fixed.
- B. The river is able to move in two different directions.
- C. People who benefit from the river must also protect it.
- D. Opposing groups can each get what they want from the river.

6. Which sentence is *most* important to include in a summary of the article?

- A. One company colored the river red and yellow with excess car paint.
- B. The Hudson River became polluted in the effort to gain wealth.
- C. The Mahicans have a saying about taking care of the river.
- D. The author has dreamed of returning to the Hudson River for fifty years.

7. Which quotation best expresses the author's point of view in the article?

- A. "In less than 300 years it had grown from a tiny Dutch outpost in the wilderness to the business capital of the world." (paragraph 1)
- B. "In 1963, Con Edison, New York City's power company, proposed a plan for constructing the largest hydroelectric pumping station ever built." (paragraph 8)
- C. "More and more people joined the movement as they realized how much difference each of us can make." (paragraph 12)
- D. "It's now my turn to help in keeping the river of dreams flowing, for all those dreamers yet to come." (paragraph 17)

Read this article. Then answer the questions that follow.

Excerpt from *A la Carte*

by Tanita S. Davis

1 "Homework?" My mother mouths the word exaggeratedly, eyebrows raised, and I roll my eyes. Frowning, she points with her chin to the side door that leads to the stairs. I roll my eyes again, mouthing, Okay, okay, not needing her to pantomime further what she wants me to do. I hate the thought of leaving the clattering nerve center of the restaurant to wrestle with my trigonometry homework in my mother's quiet office downstairs.

2 "Order!"

3 The bright lights and swirl of noise and motion are muffled as the kitchen door swings closed behind me.

4 It's hard to remember a time when the restaurant hasn't been the center of our lives. Mom used to be a copy editor and wrote food features for our local paper, the Clarion, and she met Pia when she did a write-up on the culinary school Pia attended. Pia thinks it was fate that Mom wanted to invest in a restaurant at the same time Pia wanted to buy the old bank building.

5 La Salle Rouge doesn't serve much in the way of "kid" food, since the menu doesn't cater to people my age on a cheap date, but I've loved everything about it from the first. I started experimenting with being a vegetarian when I turned fourteen, but Pia still found things to feed me and taught me to be creative with vegetables and tofu. I like to think I'm the best-fed vegetarian in the state of California.

6 Pia's been really good about teaching what she knows, and I decided early on that this is the work I want to do—get out of school and get into the kitchen for good. Mom and Pia have created a popular French-Asian-Californian fusion restaurant that has gotten great reviews from food critics. They took the best of each other's tastes— Mom's traditional Southern flavors and Pia's French training combined with her vegetable- and spice-savvy Cambodian tastes—and pulled off what one food critic called "stylized food with unique flavor combinations in an

intimate setting.”

7 Whatever that means.

8 Three years ago, when I started high school thirty pounds heavier than everyone in my class, Mom and I came up with a light menu for La Salle Rouge, and it’s been such a popular idea that Mom lets me come up with tasty, low-calorie desserts, which is one of my favorite things to do. It hardly seems fair that I have to walk away from all of that just to do trigonometry, but my mom says I have to finish school before I concentrate on cooking. She says it’s smarter to have a “backup plan,” and she’s made me apply to plenty of colleges and check out business majors just in case I ever want to do anything else with my life. I guess that makes sense if you’re anybody other than me. When I turn eighteen, I already know what I’m going to do.

9 First, I’m going to buy a plane ticket to D.C. and go to Julia Child’s kitchen at the Smithsonian and leave roses. They don’t let you walk through it, but somewhere—I don’t know where—I’m going to leave a bouquet and a little note for her. Julia Child is my patron saint. She’s the queen of all reasons people can do anything they want in life. Saint Julia didn’t start cooking until she was practically forty, and she went on to do TV shows and make cookbooks and be this huge part of culinary history. She never got too fancy, she never freaked out, and she was never afraid to try new things. I want to be just like her—except maybe get famous faster.

10 The second thing I’m going to do is buy myself a set of knives. Pia swears by this set of German steel knives she got when she graduated, but I’ve seen the TV chef Kylie Kwong use a phenomenal-looking ceramic knife on her show on the Discovery Channel. Either way, knives are what the best chefs have of their very own.

11 The third thing I’m going to do, after I get back from Washington and get my knives, is . . . get discovered. Somehow. I know I’m going to have to pay my dues, but I’m so ready for my real life to start. It’s not something I admit to a lot, but my real dream is to be a celebrity chef. Do you know how many African American female chefs there aren’t? And how many vegetarian chefs have their own shows? The field is wide open for stardom. Every time I watch old episodes of Saint Julia, I

imagine that I have my own cooking show. The way celebrity chefs do it now, I could also have a line of cooking gear, cookbooks, aprons, the works. People would know my name, ask for my autograph, and try my recipes. All I have to do is finish my trig homework and get back into the kitchen.

8. In paragraph 1, what does the phrase "clattering nerve center of the restaurant" suggest?

- A. messiness, chaos
- B. energy, core
- C. tension, anxiety
- D. greatness, stability

9. Which quotation best expresses a central idea of the story?

- A. "I started experimenting with being a vegetarian when I turned fourteen" (paragraph 5)
- B. ". . . I decided early on that this is the work I want to do " (paragraph 6)
- C. "It hardly seems fair that I have to walk away from all of that" (paragraph 8)
- D. ". . . just in case I ever want to do anything else with my life." (paragraph 8)

10. Read this sentence from paragraph 9.

She's the queen of all reasons people can do anything they want in life.

What does this sentence suggest about Julia Child?

- A. Her famous kitchen became part of a cooking museum.
- B. She was successful in a career that interested her.
- C. She always remained calm in the kitchen.
- D. Her cooking style created unique flavor combinations.

11. In paragraph 11, what does the one-word statement "Somehow" reveal?

- A. It illustrates the narrator's enthusiasm about her future plans.
- B. It shows the narrator has some questions about whether she will succeed or not.
- C. It shows the narrator does not have every detail of her future plans figured out just yet.
- D. It demonstrates the narrator's lack of knowledge about how difficult her goals are to achieve.

12. What does the statement "I know I'm going to have to pay my dues" (paragraph 11) show about the narrator's attitude toward her plans?

- A. She thinks the price of fame might be too high.
- B. She realizes success depends on more than setting a goal.
- C. She is highly motivated by the idea of becoming famous.
- D. She thinks becoming a celebrity chef requires only money.

13. Which sentence would be most important to include in a summary of the story?

- A. When the narrator's mother makes her do homework, the narrator rolls her eyes.
- B. When the narrator's mother wanted to invest in a restaurant, Pia wanted to buy the old bank building.
- C. The narrator admires celebrity chefs.
- D. The narrator lives in California.

14. The author develops the narrator's point of view mainly through the use of

- A. internal monologue
- B. conflict between characters
- C. limited dialogue
- D. flashback

Read this article. Then answer the questions that follow.

Excerpt from *Wheels of Change: How Women Rode the Bicycle to Freedom (With A Few Flat Tires Along the Way)*

by Sue Macy

1 Women's rights crusader Elizabeth Cady Stanton was in her eighties during the heyday of the bicycle, and no evidence exists to show that she actually ever rode one. But there was no better or more eloquent advocate for women and the wheel. In 1895, Stanton contributed an article to the *American Wheelman* celebrating this "wonderful new style of locomotion." In the article, titled "The Era of the Bicycle," she pointed out that cycling was increasing people's mobility, eliminating the cost of feeding and housing horses, and encouraging the building of good roads. However, she saved her greatest praise for the bicycle's effects on women. "The bicycle," she wrote, "will inspire women with more courage, self-respect and self-reliance and make the next generation more vigorous of mind and of body; for feeble mothers do not produce great statesmen, scientists and scholars."

2 For all the practical benefits of the two-wheeler, the fact is that it brought about a cosmic shift in women's private and public lives. With the rise of industry and the move from a rural to an urban economy in the 19th century, American women had become increasingly confined to their homes. Young girls could play outside, but when they matured, their freedom of movement was greatly restricted. "At sixteen years of age, I was enwrapped in the long skirts that impeded every footstep," remembered Frances Willard, who in 1895 wrote a best-selling account of how she learned to ride a bicycle at age 53. "I have detested walking and felt with a certain noble disdain that the conventions of life had cut me off from what . . . had been one of life's sweetest joys."

3 While wealthier women were saddled with long skirts and restrictive corsets, those who were less well-off worked anonymously in mills and factories. All in all, the result was the same. Except in a few instances, the public image of America was male. Politicians, soldiers, business leaders, and even the leading athletes in the new sports of baseball and football were all men. But the bicycle changed that.

Suddenly, women were leaving their homes to cycle and socialize on country roads and city streets. Bicycle racers such as Louise Armaindo and Frankie Nelson had their exploits splashed all over the papers. Bicycle manufacturers, intent on mining an untapped market, showed female models in their advertisements. Thanks to the wheel, women were starting to be seen and heard in public life.

4 It was not a stretch for some cyclists to see the possibility of a larger role for women in the world. When she conquered the wheel, Frances Willard was a former university president and the longtime president of the Woman's Christian Temperance Union, which fought to prohibit the use of alcoholic beverages and to win women the right to vote. Willard saw parallels between learning to ride and learning to live. "I began to feel that myself plus the bicycle equaled myself plus the world, upon whose spinning wheel we must all learn to ride," she wrote. "He who succeeds, or, to be more exact in handing over my experience, she who succeeds in gaining the mastery of [a bicycle], will gain the mastery of life."

5 For decades, Willard, along with Elizabeth Cady Stanton, Susan B. Anthony, and many others, had been working toward increased political and economic rights for women. Now the bicycle brought a taste of independence to women on a very personal level, and some of them took the opportunity to express their discontent with old traditions and expectations. In August 1895, a cyclist named Ann Strong caused a stir when she compared the value of a bicycle to that of a husband in the Minneapolis Tribune. "I can't see but that a wheel is just as good company as most husbands," she declared. "I would as lief¹ talk to one inanimate object as another; and I'd a great deal rather talk to one that can't answer than one that won't." Strong then contrasted the joy of cycling with the challenges of raising a family. "You can make your wheel tidy over night," she said, "and it never kicks off its shoes the very last minute, and never smears itself with molasses. When you are ready you can start. No little elbows are stuck in your ribs; there is no wiggling; screams at the cars or at the candy stores. You glide along, silently, smoothly, swiftly."

6 Some stated the liberating effects of the bicycle with less sarcasm. "The bicycle has brought to women a healthful, wholesome means of securing a degree of freedom and independence that no amount of discussion regarding 'women's rights' would ever have produced," wrote the L.A.W. Bulletin and Good Roads

magazine in 1898. Meanwhile, Munsey's Magazine assessed the impact of the wheel on women in a special bicycle-themed issue. "If she has ridden her bicycle into new fields, becoming in the process a new creature, it has been gradually and unconsciously," the editors wrote.

7 "She did not have to be born again in some mysterious fashion, becoming a strange creature, a 'new woman.' She is more like the 'eternal feminine,' who has taken on wings, and who is using them with an ever increasing delight in her new power." Indeed, many bicycle companies at home and abroad did put wings on the women in their advertisements, emphasizing that they had taken flight.

8 Not all publications treated the emergence of the "new woman" with the same level of approval. Some mocked her, while others just seemed baffled by her. Her new way of dressing, in bloomers or divided skirts or skirts with shortened hems, certainly disturbed the old social order, but so did her confidence and daring. These traits led commentators to worry that the differences between the sexes were being blurred, a fear that was reinforced as the four newest states—Wyoming, Colorado, Utah, and Idaho—granted women the right to vote in the 1890s. Would the bicycle help bring about a new kind of equality between men and women? Elizabeth Cady Stanton and her colleagues certainly hoped so. At any rate, the image of a female cyclist quickly became associated with efforts to win more rights for women.

¹lief: happily

15. As it relates to the information in the article, what does "With a Few Flat Tires Along the Way" in the title suggest?

- A. Women rode bicycles along rough and unpaved roads.
- B. Women encountered resistance to their efforts.
- C. Women had a difficult time learning to ride bicycles.
- D. Women were unused to dealing with mechanical issues.

16. Read this sentence from paragraph 2.

"At sixteen years of age, I was enwrapped in the long skirts that impeded every footstep," remembered Frances Willard, who in 1895 wrote a best-selling account of how she learned to ride a bicycle at age 53.

Which word from the sentence best helps the reader understand the meaning of "impeded"?

- A. enwrapped
- B. every
- C. footstep
- D. remembered

17. Read this sentence from paragraph 3.

But the bicycle changed that.

How does the sentence develop an idea?

- A. It marks a transition.
- B. It introduces an example.
- C. It refines a previous statement.
- D. It provides evidence for a claim.

18. What do the details in paragraph 3 reveal about the author's point of view?

- A. The author thinks that clothing restrictions were less of a burden than the necessity of hard work.
- B. The author thinks that all women were treated unfairly regardless of economic status.
- C. The author thinks that poor women had more freedom of dress even though they had to work hard.
- D. The author thinks that the contrast between two classes of women had an effect on their advancement.

19. What idea about women riding bicycles is emphasized in paragraphs 6 and 7?

- A. Riding bicycles offered more than just freedom of movement.
- B. Riding bicycles was a simple way to participate in a political movement.
- C. Riding bicycles changed women's fashion.
- D. Riding bicycles was a popular subject in magazines.

20. A distinction the author makes between Elizabeth Cady Stanton and Frances Willard is that only

- A. Stanton wrote in favor of women riding bicycles
- B. Willard was actually known to ride a bicycle
- C. Stanton was actually criticized for riding a bicycle
- D. Willard was a true spokeswoman for the bicycle

21. Which quotation **best** expresses the central idea of the article?

- A. "Young girls could play outside, but when they matured, their freedom of movement was greatly restricted." (paragraph 2)
- B. "Suddenly, women were leaving their homes to cycle and socialize on country roads and city streets." (paragraph 3)
- C. "Thanks to the wheel, women were starting to be seen and heard in public life." (paragraph 3)
- D. "It was not a stretch for some cyclists to see the possibility of a larger role for women in the world." (paragraph 4)

Read this story. Then answer the questions that follow.

Excerpt from *One-Eyed Cat*

by Paula Fox

1 Ned loved snow, the whisper when he walked through it, a sound like candles being blown out, the coming indoors out of it into the warmth, and standing on the register in the big hall through which the dusty, metal-smelling heat blew up, and the going back out again, shivering, cold, stooping and scooping up a handful to make a snowball, packing it hard with wet mittens, hefting it, tossing it as far as he could, and the runners of his sled whispering across it as he sleighed down the slopes which were smooth and glittering and hard, like great jewels.

2 On the first of December, there was a heavy snowfall. When Ned looked out of his window the next morning, the river glowed like a snake made out of light as it wound among the snow-covered mountains.

3 He ate breakfast hastily, too preoccupied to read the story on the cereal box. Mrs. Scallop, the housekeeper, was broody this morning and left him alone, her glance passing over him as it passed over the kitchen chairs.

4 On the porch, he paused to take deep breaths of air which tasted, he imagined, like water from the center of the ocean, then he waded into the snow, passing the Packard, its windows white and hidden, the crabapple tree with its weighted branches, down the long hill trying to guess if he was anywhere near the buried driveway. By the time he reached Mr. Scully's house, his galoshes were topped with snow and his feet were wet. Mr. Scully's shades were drawn; the house had a pinched look as though it felt the cold.

5 Ned went around to the back until he could see the shed. There were boot tracks in the snow leading to it and returning to the back door. He guessed the old man had taken in the cat's bowl; it was nowhere to be seen. You couldn't leave anything out in this weather, it would freeze. Mr. Scully had told him that finding water in the winter was a big problem for animals. Licking the snow or ice could make them sick.

6 Ned stared hard at the shed. Perhaps the cat was inside, squeezed in behind

logs in a tight space where its own breath would keep it warm. He was going to be late to school if he didn't get a move on, but he kept looking hard all over the yard as though he could make the cat appear out of snow and gray sky. Twice, his glance passed over the icebox. The third time, he saw that the motionless mound on top of it was not only the quilt but the cat, joined into one shape by a dusting of snow.

7 Ned held his breath for a moment, then put his own feet in Mr. Scully's tracks and went toward the shed. The tracks had frozen and they crunched under Ned's weight, but the cat didn't raise its head. Ned halted a few feet away from it—but of course, he realized, it wouldn't hear him because of its deaf ear. He could have gone closer to it than he'd ever been but he had a sudden vision of the cat exploding into fear when it finally did hear him.

8 When he got back to the front of the house, he saw fresh footsteps on the road. He could tell it was the road because of the deep ditches which fell away to either side. He guessed they were Billy's tracks. It was odd to think that Billy, huffing and puffing, had gone past Mr. Scully's place, thinking his own thoughts, while he, Ned, only a few yards away, had been searching for the cat. He found Evelyn's tracks, too, and later on, Janet's, the smallest of all. He felt ghostly as if he'd been left alone on a white, silent globe.

9 Somewhere in the evergreen woods, snow must have slid off a bough, for he heard the loud plop, then the fainter sound of the bough springing up, relieved of the weight. He thought about the cat, visualizing how it had looked on the quilt. How still it had been! Why hadn't he gone right up to it, looked at it close, touched its fur? Why had it been so motionless—still as death, still as a dead vole he'd seen last summer in the grass near the well? He came to the snow-covered blacktop road upon which a few cars had left their ridged tire tracks. He had a strong impulse to turn back, to play hooky for the first time in his life. Mr. Scully, with his poor eyesight, might not spot the cat on top of the icebox, might not, then, set food out for it. Fretting and shivering, his feet numb, Ned went on to school.

10 He tried very hard to concentrate on his lessons, to watch Miss Jefferson's plump, even handwriting on the blackboard as she wrote out the lines from a poem by Thomas Gray that the class was to memorize that week, but try as he might, the image of the unmoving animal on the ragged old quilt persisted. Last week, on a

rainy afternoon, the cat had looked at Ned, had cocked its head as though to see him better. Its one eye, narrowed, had reminded him of a grain of wheat.

11 "The curfew tolls the knell of parting day,

12 The lowing herd wind slowly o'er the lea . . ."

13 Ned read the lines several times before copying them down in his copybook. The words made no sense to him. It was this that had made his hours in school so hard ever since he and Mr. Scully had seen the cat last autumn, this drawing away of his attention from everything that was going on around him. He was either relieved because the cat was where he could see it or fearful because he didn't know where it was.

22. Read these words from paragraph 4.

Mr. Scully's shades were drawn; the house had a pinched look as though it felt the cold.

The use of the words "pinched look" contributes to the tone of the story by making the house seem

- A. tense
- B. angry
- C. uncertain
- D. disappointed

23. How does paragraph 5 contribute to the development of the plot?

- A. by showing that Ned and Mr. Scully are friends
- B. by describing the challenges of dealing with heavy snow
- C. by suggesting that Mr. Scully has been neglecting the cat
- D. by describing weather conditions that can be dangerous for the cat

24. In paragraph 7, why does Ned keep his distance from the cat?

- A because he envisions the cat being sick from licking ice or snow
- B because he believes the cat will make him late to school
- C because he imagines the cat will become panicked
- D because he remembers the cat is deaf and unlikely to respond

25. Paragraph 8 in the story reveal that Ned feels

- A. isolated
- B. confused
- C. relieved
- D. confident

26. Ned's decision to leave the cat causes

- A the cat to become more afraid
- B Ned to be left behind by the other children
- C the cat to go hungry for the rest of the day
- D Ned to be distracted from his work during school

27. Which quotation **best** supports a central theme of the story?

- A "He ate breakfast hastily, too preoccupied to read the story on the cereal box." (paragraph 3)
- B "Twice, his glance passed over the icebox." (paragraph 6)
- C ". . . but try as he might, the image of the unmoving animal on the ragged old quilt persisted." (paragraph 11)
- D "Ned read the lines several times before copying them down in his copybook." (paragraph 13)

28. Which quotation from the story **best** shows how the cat has impacted Ned's life?

A "He was going to be late to school if he didn't get a move on, but he kept looking hard all over the yard as though he could make the cat appear out of snow and gray sky." (paragraph 6)

B "The third time, he saw that the motionless mound on top of it was not only the quilt but the cat, joined into one shape by a dusting of snow." (paragraph 6)

C "It was odd to think that Billy, huffing and puffing, had gone past Mr. Scully's place, thinking his own thoughts, while he, Ned, only a few yards away, had been searching for the cat." (paragraph 7)

D "It was this that had made his hours in school so hard ever since he and Mr. Scully had seen the cat last autumn, this drawing away of his attention from everything that was going on around him." (paragraph 13)

Read this article. Then answer the questions that follow.

Clash of the Condiments: Wasabi vs. the Chili Pepper

by Mary Beth Cox

1 Most condiments are peaceable enough. The sauces, spreads, and pickles of the world add flavor to our foods without kicking up much of a fuss. This is not true of the pungent or "hot" condiments. They are more aggressive. They get our attention by purposely causing us pain. These strong-armed seasonings are often the source of friendly competitions. Loyal fans will contend that their favorite pungent condiment is the one that packs the most powerful punch. Ladies and gentlemen, you are cordially welcomed to just such a contest. Here it is, the Match of the Moment: Wasabi vs. the Chili Pepper.

IN YOUR CORNERS

2 Introducing in the Green Corner, hailing from the island nation of Japan, sushi's inseparable sidekick: Wasabi! *Wasabia japonica* grows wild on the cool, damp banks of Japan's many mountain streams. The chill of its habitat is quite ironic since wasabi is famous for bringing the heat. The plant is a botanical relative of mustard and horseradish. Pungency runs in the family. Traditionally, wasabi is prepared by grating its rootstock on the abrasive skin of an angel shark. Authentic wasabi is relatively rare and difficult to come by. The emerald condiment that is served outside of Japan is almost always horseradish pulp dyed with green food coloring. Whether the wasabi is real or whether it's the more common substitute, a whopping snootful will make you cry for your momma!

3 And in the red corner, originating from the Central and South Americas, now an international culinary superstar: the Chili Pepper. Chili peppers are fruits of the plants of the botanical genus *Capsicum*. They are related to the tomato and the eggplant. They're the renegades in an otherwise mild-mannered botanical family. Chili peppers include but are not limited to the poblano, the cayenne, the jalapeño, the tabasco, the habanero, and the serrano. One of these culprits sometimes goes by the alias "chipotle." A chipotle (pronounced chee-POHT-lay) is none other than a dried smoked jalapeño. Chillies were introduced to the non-American world by Christopher Columbus, who mistakenly identified them as variants of black pepper.

Chilies have since taken the culinary world by storm. They appear alongside dishes served around the globe, from the Basque provinces to North Africa and the Middle East, to India and Southeast Asia. A potent chili pepper in the kissers will make you rue the day you were born!

POWERFUL PUNCHES

4 Both wasabi and chilies are condiments of world-class pungency. But how do they match up head to head? Each has its own unique tactical move. Each has its own special point of attack. The active ingredient of the wasabi plant is stored stealthily in its cells. Under normal growing conditions, this ingredient is completely harmless. It's not until the plant's cells are ruptured (as by the grating action of angel shark skin) that the trouble begins. *Enzymes* convert the ingredient into molecules of allyl isothiocyanate. It's the chemical characteristics of these irritating molecules that are the secret to wasabi's pungency. Allyl isothiocyanate molecules are lightweight. They are *volatile*. They are also soluble in water. As a consequence, the consumption of wasabi launches an airborne assault on the consumer's sinuses. Allyl isothiocyanate molecules waft up the nose and back of the throat. They dissolve in the watery fluids they find there. They intercept nerve endings in the nasal passages. Specifically, these molecules target pain receptors of the type known as TRPA. TRPA receptors respond to the attack by sending emergency signals to the brain: "Yikes . . . we've gotten hold of something painfully hot!"

5 Chili peppers conduct operations of a different sort. Their active ingredient is a substance called capsaicin. It's found in the spongy inner tissue of peppers, but it can leak onto the seeds and inner wall of the fruit. Capsaicin molecules are heavier than the molecules of wasabi's allyl isothiocyanate. They are not volatile. They prefer to dissolve in oils, so they aren't as easily dissolved in water. Capsaicin molecules instigate an incendiary assault upon contact with exposed vulnerable surfaces. They cling to the tender tissues of the lips, mouth, and throat. They burn eyes that are rubbed with capsaicin-laced fingers. Capsaicin molecules interact with pain receptors of the type TRPV. Again an alert is expedited to the brain: "Mayday! Mayday! Let's not eat any more of that, please!"

WHERE'S THE REFEREE?

6 So which of these condiments causes the most pain? To settle any contest, a

scoring system is required. There is a way to compare the relative heat intensities of the various chili peppers. It's called the *Scoville scale*. Scoville ratings are determined by brave human test subjects who willingly sip extracts of chili pepper juice. Extracted juices are diluted again and again until their heat can no longer be detected. A high rating on the Scoville scale means that a lot of dilutions are necessary to eliminate the pain caused by a particular pepper. Unfortunately, Scoville ratings are not applicable to wasabi. The method is specifically designed to extract capsaicin from chili peppers. It doesn't work for allyl isothiocyanate, or for anything else.

7 Pepper pungencies are also compared by using chromatography. *Chromatography* is an analytical technique that separates the chemical components of a mixture. After separation, the amounts of each component are quantified. Chromatography can determine how much capsaicin is in a pepper. It can also determine how much allyl isothiocyanate is in wasabi. If two chili peppers have the same amount of capsaicin, it can be assumed that those peppers are equally "hot." But the same assumption cannot be made when comparing chili peppers to wasabi. There's no way to know if equal amounts of capsaicin and allyl isothiocyanate cause equal degrees of pain. So chromatography cannot definitively judge this contest.

8 It isn't even possible to directly measure and compare nerve responses, since two different types of pain receptors are involved. Wasabi and chili peppers are like pungent apples and oranges. There's no objective way to declare one more potent than the other. This friendly competition won't be settled anytime soon. Everyone is free to chime in with an opinion. You just have to try both of these pungent powerhouses, then root for your own favorite flavor of pain.

29. How does paragraph 1 **mainly** establish the tone of the article?

- A. They create curiosity by inviting the reader to provide an opinion on the two condiments.
- B. They create interest by describing loyal fans supporting their favorite condiment.
- C. They create humor by personifying two condiments in an imagined contest.
- D. They create tension by analyzing the popularity of two condiments.

30. Read these lines from paragraph 3 from the article.

Chilies have since taken the culinary world by storm.

Which detail **best** supports the author's claim?

- A. Chili peppers come in many varieties.
- B. Chili peppers are used in many different countries.
- C. Chili peppers are related to tomatoes and eggplants.
- D. Chili peppers were mistakenly thought to resemble black pepper.

31. Read this sentence from paragraph 4 of the article.

As a consequence, the consumption of wasabi launches an airborne assault on the consumer's sinuses.

What does the phrase "airborne assault" add to the author's description?

- A. It explains the effect of experiencing the molecules in wasabi.
- B. It suggests a painful experience that makes wasabi undesirable.
- C. It warns that direct contact with wasabi causes injury.
- D. It cautions that wasabi causes an intense repeated attack occurring over time.

32. What is the role of the section "Powerful Punches" in the development of the article?

- A. It describes the physical differences between wasabi and chili peppers.
- B. It explains the best ways to experience the heat from wasabi and chili peppers.
- C. It describes why wasabi and chili peppers are both enjoyable and painful to consume.
- D. It provides a scientific explanation for the effects of consuming wasabi and chili peppers.

33. The Scoville scale determines the strength of the heat in chili peppers by

- A. counting the number of sips of chili pepper juice a human subject can consume
- B. recording the amount of capsaicin present in specific amounts of chili pepper juice
- C. measuring how much chili pepper juice must be weakened for it to no longer cause pain
- D. comparing descriptions of the heat a human subject feels while drinking chili pepper juice

34. What is the result of being unable to use the Scoville scale to measure the heat strength of wasabi?

- A. Chromatography is used to compare the heat strengths of wasabi and chili peppers.
- B. Comparing the heat strengths of wasabi and chili peppers using a scientific method is impossible.
- C. A new scale will be developed to compare the degree of pain caused by wasabi and chili peppers.
- D. Experts now rely on a scale based on measuring consumer pain responses to wasabi and chili peppers.

35. Read this sentence from lines 71 and 72 of the article.

Wasabi and chili peppers are like pungent apples and oranges.

Which evidence from the article **best** supports this statement?

- A "They get our attention by purposely causing us pain." (paragraph 1)
- B "After separation, the amounts of each component are quantified." (paragraph 7)
- C "If two chili peppers have the same amount of capsaicin, it can be assumed that those peppers are equally 'hot.'" (paragraph 7)
- D "There's no way to know if equal amounts of capsaicin and allyl isothiocyanate cause equal degrees of pain." (paragraph 7)

Read this article. Then answer the questions that follow.

Excerpt from *Humans With Amazing Senses*

1 When bats go out to hunt, they send out sonar signals at such high frequencies and in such rapid bursts that they can hear the signals bounce off mosquitoes in midair. They then zero in on the insects like laser-guided missiles. Dolphins use the same technique to find their dinners. It's called echolocation, a technique that uses sound to identify objects by the echoes they produce.

2 Fourteen-year-old Ben Underwood of Sacramento, Calif., is one of the few people known to use echolocation as a primary means of navigating the world on land. There's not even a hint of light reaching his brain. His eyes are artificial, but his brain has adapted to allow him to appraise his environment. He makes a "clicking" sound to communicate with objects and people around him.

3 Scientists have discovered that in the brains of the blind, the visual cortex has not become useless, as they once believed. When blind people use another sense—touch or hearing, for example—to substitute for sight, the brain's visual cortex becomes active, even though no images reach it from the optic nerve. Echolocation creates its own images.

4 "I can hear that wall behind you over there. I can hear right there—the radio, and the fan," Ben says.

5 Ben says every object in his life talks to him in ways that no one else can hear or understand.

6 Forty-year-old Daniel Kish of Long Beach, Calif., also uses echolocation, and has become an expert on it, founding the World Access for the Blind, an organization that teaches others how to echolocate. Kish leads other blind people on mountain biking tours and hikes in the wilderness, visualizing and describing the picturesque sights around him through echolocating.

Clicking to Do Anything

7 If you listen closely to Ben or Kish, you can hear how they find their way. Ben says he can distinguish where the curbs are as he cruises his neighborhood streets.

8 He can find the pole and the backboard on a basketball goal, and tell which is which by the distinctive echo each makes. Even though he can't see the goal he's aiming for, he can sink a basket. Ben doesn't remember how or when he began clicking, but he's developed his abilities to such an extent that aside from echolocation, he can rapidly discriminate the sounds in video games.

9 Ben lost his sight when he was 2. He was diagnosed with cancer in both eyes, and when chemotherapy failed, his mother, Aquanetta Gordon, was left with one option: For her son to live, both his eyes had to be surgically removed.

10 Gordon remembers her son after the operation.

11 "He woke up and he said, 'Mom, I can't see anymore, I can't see anymore.' And I took his hands and I put them on my face and I said, 'Baby, yes, you can see.' I said, 'You can see with your hands.' And then I put my hand on his nose and I said, 'You smell me? You can see with your nose and your ears. . . . You can't use your eyes anymore, but you have your hands and your nose and your ears.'"

12 In a house already filled with three other children, Ben's mother decided not to treat his blindness as a handicap. In school, Ben recognizes his classmates by their voices. With the help of Braille books and a talking laptop computer, Ben attends the same classes as sighted students.

Rich Mental Images, Without Visual Elements

13 Like Ben, Kish also lost his eyesight to cancer at age 1. He was raised to believe he could do pretty much anything, and he discovered clicking by accident as a child.

14 "I have mental images that are very rich, very complex. They simply

do not possess the visual element," Kish says.

15 In retrieving those pictures, Kish varies the pace and volume of his clicks as he walks along; and what he can tell you about an object's qualities is sometimes astonishingly thorough.

16 If bats can distinguish prey as small as mosquitoes with echolocation, and some dolphins can detect small targets a hundred yards away, what are the ultimate capabilities of human beings like Ben and Kish?

17 Peter Scheifele, who studies hearing and sound production in animals and people at the University of Connecticut, analyzed samples of the clicks that Ben and Kish make.

18 "Ben clicks, looks to me like once every half second, whereas a dolphin is actually making 900 clicks per second. And the bat is even faster than that," Scheifele says.

19 The bottom line: Human beings send out sounds at much slower rates and lower frequencies, so the objects people can picture with echolocation must be much larger than the ones bats and dolphins can find.

36. Which statement expresses a central idea of the article?

- A. Very few people use echolocation in their daily lives.
- B. Echolocation is a technique that can be utilized by humans.
- C. Echolocation has been studied by scientists for many years.
- D. Some animals are known for using echolocation to find food.

37. How does paragraph 1 contribute to the understanding of the text?

- A. by showing the widespread use of echolocation by animals
- B. by giving examples to explain how echolocation works
- C. by presenting the characteristics of animals that use echolocation
- D. by describing how each species uses echolocation differently

38. In people who are blind, the visual cortex seems to help

- A. activate the optic nerve where images are formed
- B. increase the amount of light reaching the brain
- C. create images in the brain based on sounds
- D. make echoes of sounds from clicks

39. Read this sentence from paragraph 5.

Ben says every object in his life talks to him in ways that no one else can hear or understand.

Which quotation best supports this claim?

- A. "He can find the pole and the backboard on a basketball goal, and tell which is which by the distinctive echo each makes." (lines 26 and 27)
- B. "Even though he can't see the goal he's aiming for, he can sink a basket." (lines 27 and 28)
- C. "In school, Ben recognizes his classmates by their voices." (line 41)
- D. "With the help of Braille books and a talking laptop computer, Ben attends the same classes as sighted students." (lines 41 through 43)

40. Read Daniel Kish's claim from paragraph 14.

"I have mental images that are very rich, very complex." Which quotation from the article best supports this claim?

A "... Kish of Long Beach, Calif., also uses echolocation, and has become an expert on it. . . ." (lines 19 and 20)

B "He was raised to believe he could do pretty much anything. . . ." (lines 44 and 45)

C "... Kish varies the pace and volume of his clicks as he walks along. . . ." (lines 48 and 49)

D "... what he can tell you about an object's qualities is sometimes astonishingly thorough." (lines 49 and 50)

41. How does paragraph 16 develop a key concept of the article?

A. by using a comparison to suggest the echolocation potential of humans

B. by demonstrating that humans use echolocation more effectively than animals do

C. by describing why using echolocation benefits bats and dolphins in unique ways

D. by showing that scientists need more time to study echolocation techniques

42. Echolocation used by humans is distinct from echolocation used by animals because animals can

A. create louder clicking noises

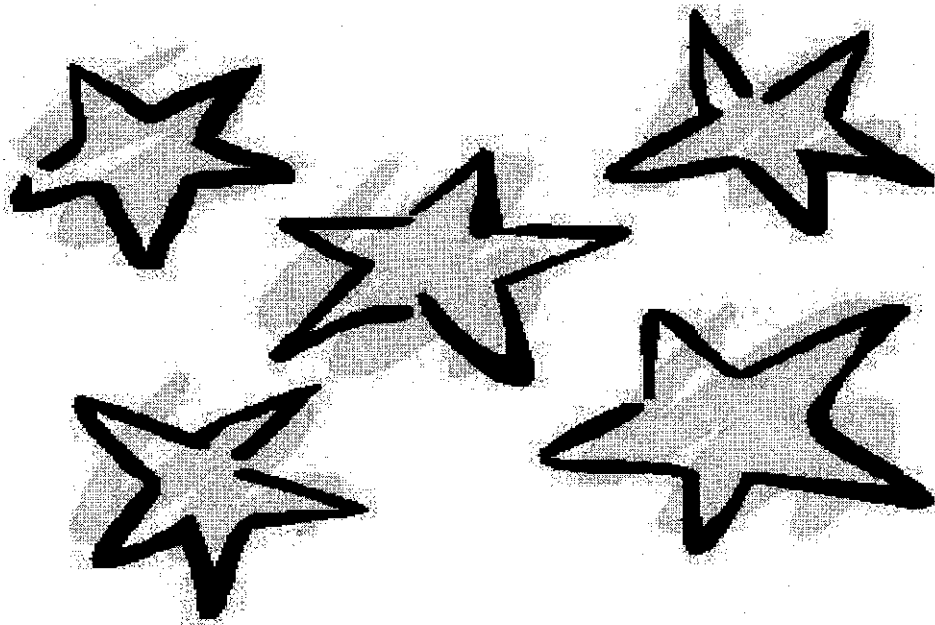
B. distinguish among more sounds

C. see objects that are farther away

D. locate objects that are smaller in size



8th Grade Math



To Proficiency and
Beyond!

10 Free Math Learning Websites

- **IXL**
 - <https://www.ixl.com/inspiration/family-learning>
 - **Math practice on each and every math skill.**
- **Khan Academy**
 - <https://www.khanacademy.org/signup?isparent=1>
 - **Math practice and interactive videos to help your child learn math.**
- **Eureka Math**
 - <https://gm.greatminds.org/en-us/knowledgeonthego>
 - **Content videos and student practice on math skills.**
- **Learn Zillion**
 - <https://learnzillion.com/resources/73932>
 - **Interactive learning videos for math!**
- **Education.Com**
 - www.education.com
 - **Math practice worksheets and interactive lessons!**
- **Fun Brain**
 - www.funbrain.com
 - **Play games while practicing math and reading skills!**
- **Cool Math**
 - <https://www.coolmathgames.com/>
 - **Cool math games for learning!**
- **Hooda Math**
 - <https://www.hoodamath.com/>
 - **Math games by grade level for math learning fun!**
- **Splash Learn**
 - <https://www.splashlearn.com/>
 - **Math games for kids that make learning fun.**
- **Cool Math 4 Kids**
 - <https://www.coolmath4kids.com/>
 - **Math games with learning.**

MAFS.8.EE.1.1



A CALCULATOR IS NOT ALLOWED

1. Circle all expressions below that are equivalent to 7^{-2} . Show or explain how you determined your choices.

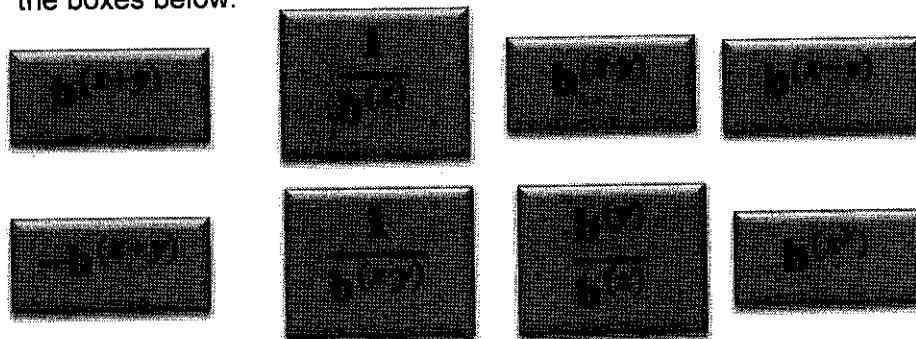
$(7)^2$ $(-7)^2$ $-(7)^2$ -49 $\frac{1}{49}$ $\frac{1}{7^2}$ $-\frac{1}{49}$ $\frac{1}{7^{-2}}$

2. Circle all expressions below that are equivalent to $(\frac{25}{50})^{15}$. Show or explain how you determined your choices.

$\frac{25^{15}}{50^{15}}$ $\frac{25^{15}}{50}$ $(\frac{50}{25})^{-15}$ $(0.5)^{15}$ 2^{15} $(\frac{25^5}{50^5})^3$



Anne packed expressions in boxes, but now the box is too heavy. She is going to unpack the expressions and put them in solution boxes. Match the expressions in the table with one of the correct solution from the boxes below.



3.

Expression	Matches	Solution
$b^x \cdot b^y$	↔	<div style="border: 1px solid black; width: 100%; height: 20px;"></div>
$b^x \div b^y$	↔	<div style="border: 1px solid black; width: 100%; height: 20px;"></div>
b^{-x}	↔	<div style="border: 1px solid black; width: 100%; height: 20px;"></div>
$(b^x)^y$	↔	<div style="border: 1px solid black; width: 100%; height: 20px;"></div>

4. What is the value of $(2^4 \div 2^2)^3$?



**A CALCULATOR
IS NOT ALLOWED**

MAFS.8.EE.1.1 FSA PRACTICE

Which expressions are equivalent to $\frac{1}{2^6}$? Select all that apply.

1.

<input type="checkbox"/>	$2^{-5} \cdot 2^{-1}$
<input type="checkbox"/>	$2^{-3} \cdot 2^2$
<input type="checkbox"/>	$2^{-2} \cdot 2^{-4}$
<input type="checkbox"/>	$2^1 \cdot 2^5$
<input type="checkbox"/>	$2^1 \cdot 2^6$
<input type="checkbox"/>	$2^2 \cdot 2^{-8}$
<input type="checkbox"/>	$2^2 \cdot 2^3$

Choose the expressions that are not equivalent to $\frac{1}{4} \cdot \frac{1}{4} \cdot \frac{1}{4} \cdot \frac{1}{4} \cdot \frac{1}{4}$? Select all that apply.

2.

<input type="checkbox"/>	$\frac{1}{4^5}$
<input type="checkbox"/>	$\left(\frac{1}{4}\right)^{-5}$
<input type="checkbox"/>	$4^{-3} \cdot 4^{-2}$
<input type="checkbox"/>	4^5
<input type="checkbox"/>	$\frac{1}{256}$
<input type="checkbox"/>	$\frac{1}{20}$

What is the value of $(3^6 \div 3^5)^2$?

- 3.
- Ⓐ 1
 - Ⓑ 3
 - Ⓒ 9
 - Ⓓ 27

Evaluate the following expressions. Show work

4.

Expression	Work	Evaluated Expression
$(4^{-3})(4^6)$		
$6^{-3} \div 6^1$		
$\frac{3^2}{3^{-2}}$		
$4^{-3} \times 2^{-3}$		

MAFS.8.EE.1.2



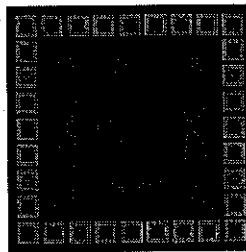
Neutral - Items Appear on Calculator and No Calculator Session

Evaluate the following expressions.

1.

Expression	Evaluated Expression
$\sqrt{121}$	
$\sqrt{\frac{4}{9}}$	
$\sqrt[3]{512}$	
$\frac{\sqrt{4}}{\sqrt{9}}$	
$\frac{4}{\sqrt{9}}$	
$\sqrt[3]{\frac{1}{27}}$	

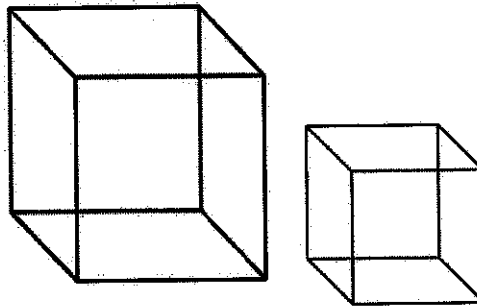
The square tile below has an area of 324 square inches. What is the perimeter of the square tile in inches?



2.

← → ↶ ↷ ✖											
1	2	3	+	-	•	÷					
4	5	6	<	≤	=	≥	>				
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π		
0	.	-									

3. The volume of the large cube is 125 cubic inches. The volume of the small cube is 27 cubic inches. What is the difference between the length of one side of the large cube and the length of one side of the small cube? Show your work.



MAFS.8.EE.1.2 FSA PRACTICE


**Neutral – Items Appear on
Calculator and No Calculator
Session**

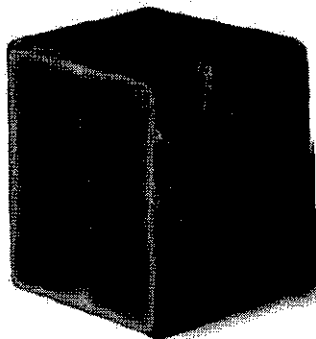
1. Which equation has 4 as a possible value of y ?

- Ⓐ $y^2 = 8$
 Ⓑ $y^3 = 8$
 Ⓒ $y^2 = 16$
 Ⓓ $y^3 = 16$

2. Which of the following statements best describe the positive solution of the equation $x^2 = 2$? Select all that apply.

<input type="checkbox"/>	The solution is 1
<input type="checkbox"/>	The solution is a rational number
<input type="checkbox"/>	The solution is an irrational number
<input type="checkbox"/>	The solution is greater than 0 but less than 1
<input type="checkbox"/>	The solution is a repeating decimal
<input type="checkbox"/>	The solution is greater than 1 but less than 2

3.



Tammy wants to grow cube watermelons like the ones that are sold in Japan. She found the following directions on the internet:

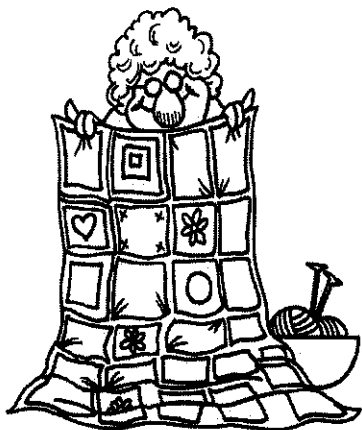
"You will need 6, square, sheets of polycarbonate plastic. The volume of the cube when assembled will be 512in^3 . See picture below"



What is the length of the side of the cube?

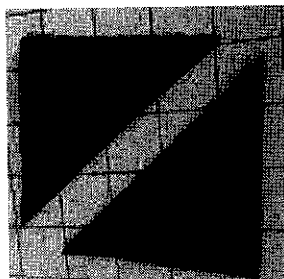
←	→	↶	↷	⊗							
1	2	3	+	-	•	÷					
4	5	6	<	≤	=	≥	>				
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π		
0	.	-									

4.



Jenny's grandmother is making a quilt for her 18th birthday. When she ran out of material she asked Jenny to go to the store and pick up more patches.

She only had one square cut in half at the diagonal, creating 2 equal triangles left. Each triangle has an area of 0.18 units.



What is the length of the side of the square?

← → ↶ ↷ ✖									
1	2	3	+	-	•	÷			
4	5	6	<	≤	=	≥	>		
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π
0	.	-							

5.

$$q^3 = 27$$

Solve for q when

← → ↶ ↷ ✖									
1	2	3	+	-	•	÷			
4	5	6	<	≤	=	≥	>		
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π
0	.	-							

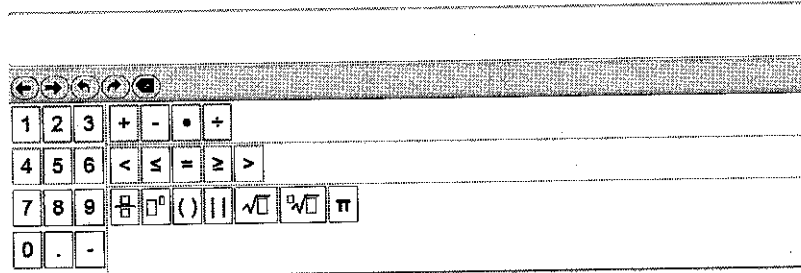
MAFS.8.EE.1.3



**A CALCULATOR
IS NOT ALLOWED**

1. The distance in kilometers to Proxima Centauri, the closest star to earth is 39,900,000,000,000

Estimate the distance in kilometers to Proxima Centauri by writing it in the form of a single digit times an integer power of 10.



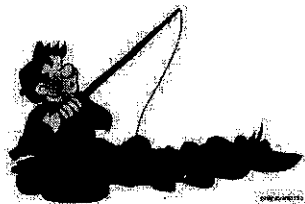
2. The Bohr radius of a hydrogen atom is 0.0000000000529

Estimate the Bohr radius of a hydrogen atom by writing it in the form of a single digit times an integer power of 10.

3. Complete the table by using $>$, $=$, or $<$. Explain how you made each choice.

Number 1	$>$, $=$, or $<$	Number 2	Explanation
6×10^{16}		4×10^{17}	
-5×10^{12}		3×10^{-12}	
-5×10^{12}		9×10^{-19}	
7×10^{-14}		7×10^{-11}	
-2×10^{15}		-2×10^{13}	

4.



The diameter of fishing line varies. Fishing lines can have a diameter as small as 2×10^{-2} inch and as large as 6×10^{-2} inch. How many times larger is the thick line compared to the thin line?

MAFS.8.EE.1.3 FSA PRACTICE



**A CALCULATOR
IS NOT ALLOWED**

1.



A mustard seed weighs approximately 0.000004409 pounds.

Estimate the weight of a mustard seed in pounds by writing it in the form of a single digit times an integer power of 10.

← → ↶ ↷ ✖										
1	2	3	+	-	•	÷				
4	5	6	<	≤	=	≥	>			
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π	
0	.	-								

2.

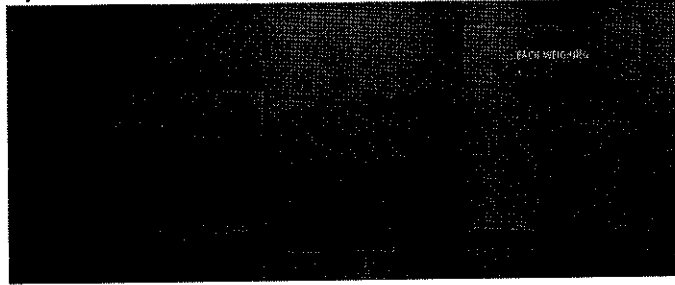


The Earth is said to be 4,540,000,000 years old.

Estimate the age of the earth by writing it in the form of a single digit times an integer power of 10.

← → ↶ ↷ ✖										
1	2	3	+	-	•	÷				
4	5	6	<	≤	=	≥	>			
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π	
0	.	-								

3. The average weight of a blue whale is 4×10^5 pounds. The average weight of an elephant is 1×10^4 pounds.



Approximately how many times heavier is a blue whale than an elephant in pounds?

← → ↶ ↷ ✖												
1	2	3	+	-	•	÷						
4	5	6	<	≤	=	≥	>					
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π			
0	.	-										

4. Determine which of the following numbers below has the same values as 8.67×10^{-5} ?

- Ⓐ 86.7×10^{-6}
 Ⓑ 8.67×10^5
 Ⓒ 0.00000867
 Ⓓ 867000

- 5a. Determine which of the following numbers below has the larger value.

- Ⓐ 2×10^{-2}
 Ⓑ 3×10^{-1}
 Ⓒ 3.2×10^{-1}
 Ⓓ 2.5×10^{-1}

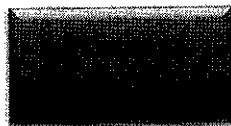
- 5b. What is the largest value from problem 5a in standard form?

← → ↶ ↷ ✖												
1	2	3	+	-	•	÷						
4	5	6	<	≤	=	≥	>					
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π			
0	.	-										

6.

	Isotope	Minimum mole fraction
NITROGEN	^2H	0 .000 0255
	^7Li	0 .9227
	^{11}B	0 .7961
	^{13}C	0 .009 629
	^{15}N	0 .003 462
	^{18}O	0 .001 875
IRON	^{26}Mg	0 .1099
	^{30}Si	0 .030 816
	^{34}S	0 .0398
	^{37}Cl	0 .240 77
	^{44}Ca	0 .020 82
	^{53}Cr	0 .095 01
	^{56}Fe	0 .917 42
	^{65}Cu	0 .3066

Comparing the minimum mole fractions only, estimate the minimum mole fractions to a single digit times an integer power of 10 in the spaces below.





Approximately, how many times larger is Iron than Nitrogen?

← → ↶ ↷									
1	2	3	+	-	•	÷			
4	5	6	<	≤	=	≥	>		
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π
0	.	-							

MAFS.8.EE.1.4

**A CALCULATOR
IS NOT ALLOWED**

1. After Tyree completed a calculation on his scientific calculator, the display showed:


4.22 E 5

Write this number in both scientific notation and in standard form.

2. After Grace completed a calculation on her scientific calculator, the display showed:

8.04 E -6

Write this number in both scientific notation and in standard form.

3.  Measures of population density indicate how crowded a place is by giving the approximate number of people per square unit of area. In 2009, the population of Puerto Rico was approximately 3.98×10^6 people and the population density was about 1000 people per square mile. What is the approximate area of Puerto Rico in square miles? Write your answer in scientific notation.

4. A collection of meteorites includes three meteorites that weigh 1.1×10^2 grams, 6.8×10^0 grams, and 8.4×10^{-2} grams. What is the difference between the mass of the heaviest meteorite and the mass of the lightest meteorite? Show work and write your answer in standard notation.

5. Write the expression shown as one scientific number.

$$\frac{(6 \times 10^{-2})(1.5 \times 10^{-3} + 2.5 \times 10^{-3})}{1.5 \times 10^3}$$

← → ↶ ↷ ✖											
1	2	3	+	-	•	÷					
4	5	6	<	≤	=	≥	>				
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π		
0	.	-									

MAFS.8.EE.1.4 FSA PRACTICE



**A CALCULATOR
IS NOT ALLOWED**

1. The erosion rate along a section of the coast is approximately 3 feet per year. Which of these best approximates this rate of erosion?

- Ⓐ 9.9×10^{-2} inches per day
 Ⓑ 9.9×10^{-2} inches per month
 Ⓒ 9.9×10^{-2} feet per day
 Ⓓ 9.9×10^{-2} feet per month

2. Write the expression shown as one scientific number.

$$\frac{(8 \times 10^2)(7.5 \times 10^4)}{5 \times 10^2}$$

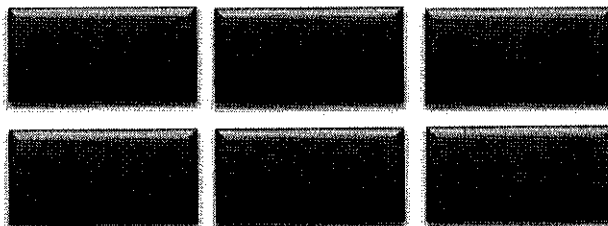
← → ↶ ↷ ✖											
1	2	3	+	-	•	÷					
4	5	6	<	≤	=	≥	>				
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π		
0	.	-									









3. The Amazon River releases 5.5×10^7 gallons of water into the Atlantic Ocean every second. There are about 3.2×10^9 seconds in a year. How many gallons are released into the ocean in one year? Show all work, and give your answer in scientific notation.

4. What is the sum of 7×10^{-8} and 2×10^{-8} ?

← → ↶ ↷ ✖											
1	2	3	+	-	•	÷					
4	5	6	<	≤	=	≥	>				
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[n]{\square}$	π		
0	.	-									

5. Match the expressions in the table below with one of the scientific numbers below.



Expression	Matches	Scientific number
$14000 - (6 \times 10^3)$		
$\frac{28,000,000}{(4 \times 10^3)}$		
$(3 \times 10^4) + (4 \times 10^4)$		
$(4 \times 10^2)(2 \times 10^2)$		

MAFS.8.EE.2.5



**A CALCULATOR
IS ALLOWED**

1. Rodnika has a saltwater fish tank. She knows the water in the tank must have the right amount of salt in order for the fish to survive. To get the proper salinity, Rodnika mixes the water and salt according to the measurements shown in the table.

Graph the line that represents the relationship shown in the table.

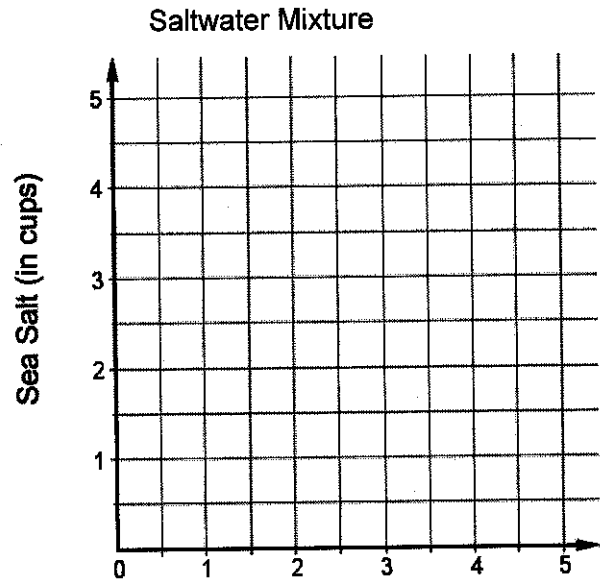
0	0
1	$\frac{1}{2}$
2	1
4	2

Part A

What is the slope of the line?

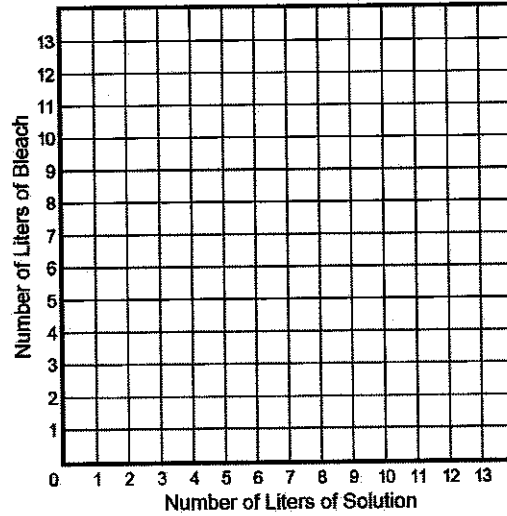
Part B

What does the slope mean in this situation?



2. A solution is 20% bleach.

Create a graph that represents all possible combinations of the number of liters of bleach, contained in number of liters of solution.



- 3.

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

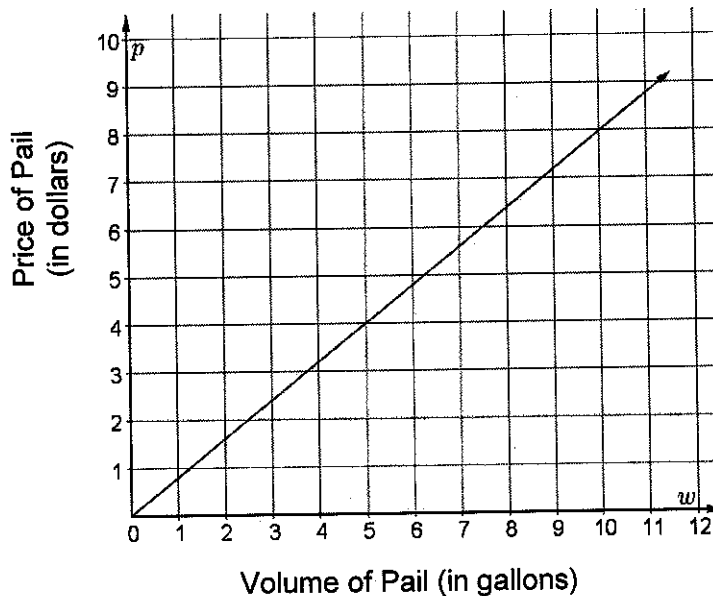
Electricity Costs							
Company P	Company M						
<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr style="background-color: #cccccc;"> <th style="padding: 5px;">Kilowatt-hours</th> <th style="padding: 5px;">Cost (dollars)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center; padding: 5px;">1,250</td> <td style="text-align: center; padding: 5px;">150.00</td> </tr> <tr> <td style="text-align: center; padding: 5px;">1,650</td> <td style="text-align: center; padding: 5px;">198.00</td> </tr> </tbody> </table>	Kilowatt-hours	Cost (dollars)	1,250	150.00	1,650	198.00	$y = 0.15x$
Kilowatt-hours	Cost (dollars)						
1,250	150.00						
1,650	198.00						

- Use this 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.

4.

Jack and Jill are selling pails that carry water. The cost of Jack's pail is represented by the equation $p = \frac{5}{4}w$ where p is the price of the pail in dollars and w is the volume of the pail, in gallons.

Jill's pail prices can be modeled with this graph:

**Part A**

Suppose Jack graphed his equation. Identify the slope of his graph and explain what it means.

Part B

Identify the slope of Jill's graph and explain what it means.

Part C

How do the slopes of the graphs compare? Explain.

MAFS.8.EE.2.5 FSA PRACTICE



**A CALCULATOR
IS ALLOWED**

1. Two different proportional relationships are represented by the equation and the table.

Proportion A

$$y = 9x$$

Proportion B

0	0
3	34.5
5	57.5
8	92

Circle the correct answer from the drop-down menus to complete the sentence, comparing the rates of change of the proportional relationships.

The rate of change in Proportion A is

Choose... ▼

Choose...

1.5

2.5

25.5

43.5

Choose... ▼

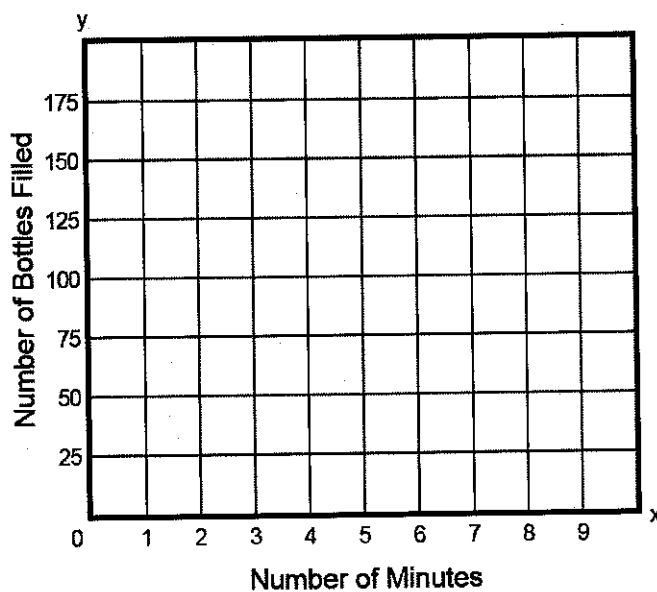
Choose...

more

less

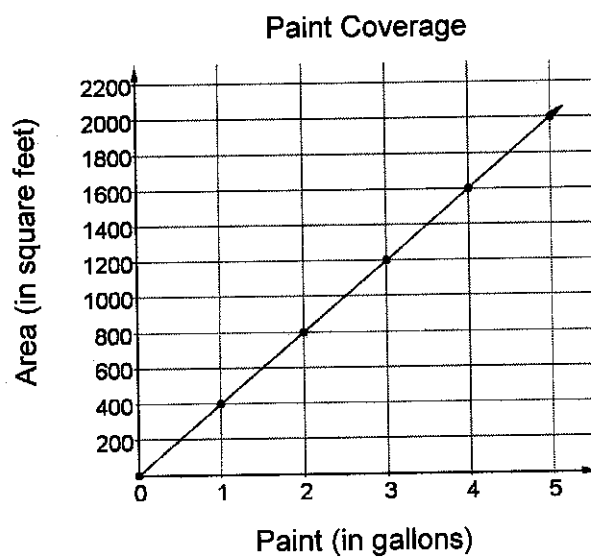
than the rate of change in Proportion B.

2. The number of bottles a machine fills is proportional to the number of minutes the machine operates. The machine fills 250 bottles every 20 minutes. Create a graph that shows the number of bottles, y , the machine fills in x minutes.



3.

Antwan is painting all the rooms in his house this year. Below is a graph representing the relationship between quantity of paint and the area covered by the paint.

**Part A**

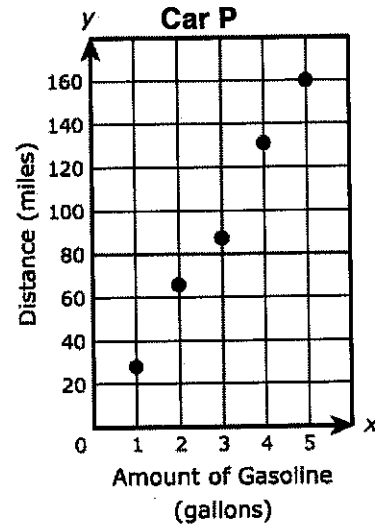
Determine a unit rate for this relationship and describe it in words.

Part B

Determine the slope of the graph and describe it in words.

4. The gasoline mileage for two cars can be compared by finding the distance each car traveled and the amount of gasoline used. The table shows the distance that car M traveled using, x , gallons of gasoline. The graph shows the distance, y , that car P traveled using x gallons of gasoline.

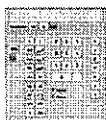
Amount of Gasoline (gallons)	Distance (miles)
2	50.4
3	80.5
7	181.3
5	137.5



Based on the information in the table and the graph, compare the approximate miles per gallon of car M to car P. Show your work or explain your answer.

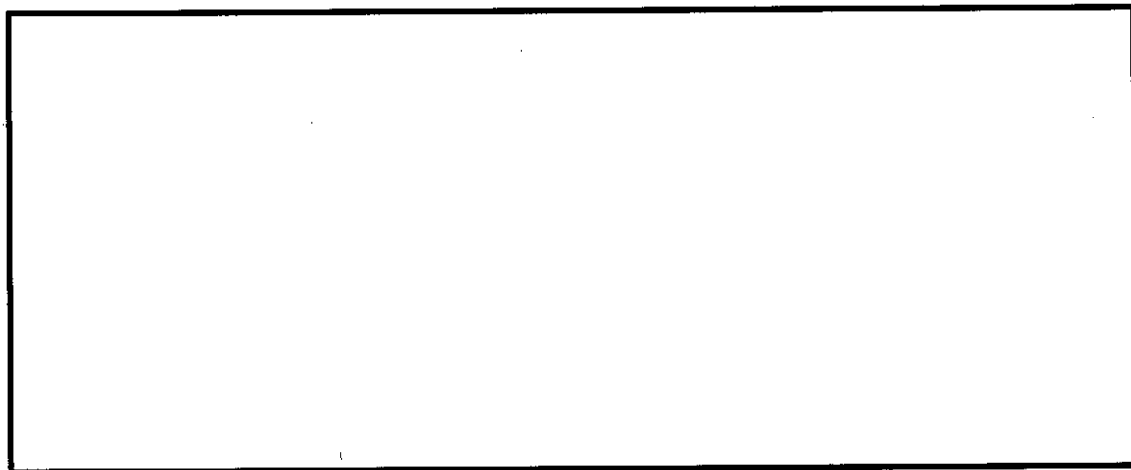
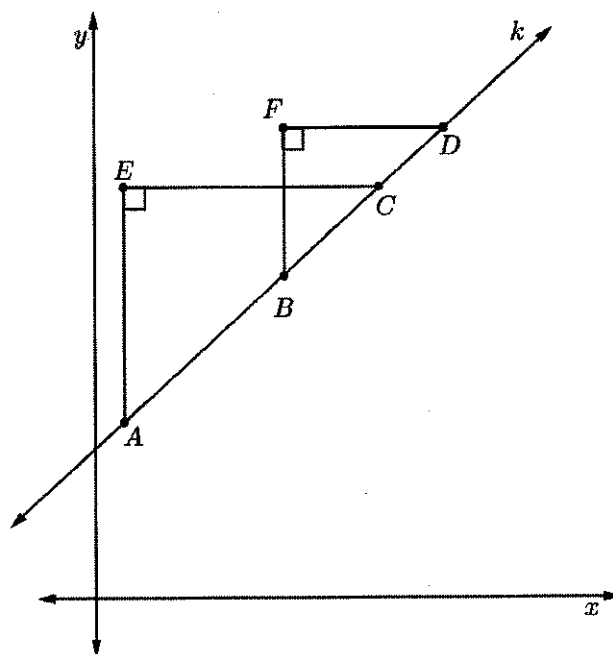
Enter your answer and your work or explanation in the space provided.

MAFS.8.EE.2.6 FSA

**A CALCULATOR
IS ALLOWED**

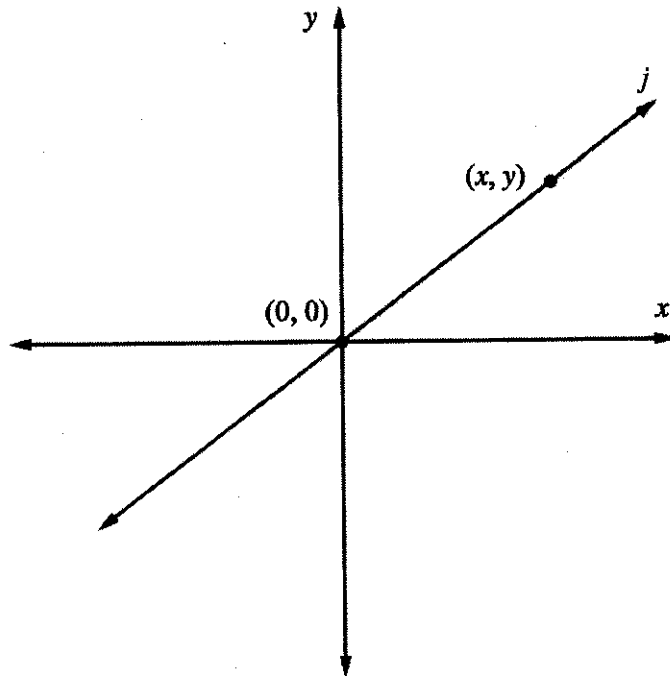
1. Line k contains points $A, B, C,$ and D . EA represents the difference between the y -coordinates and EC represents the difference between the x -coordinates of points A and C . Likewise, FB represents the difference between the y -coordinates and FD represents the difference between the x -coordinates of points B and D .

Use similar triangles to explain why the slope of line k is the same whether the slope is calculated using points A and C or points B and D .



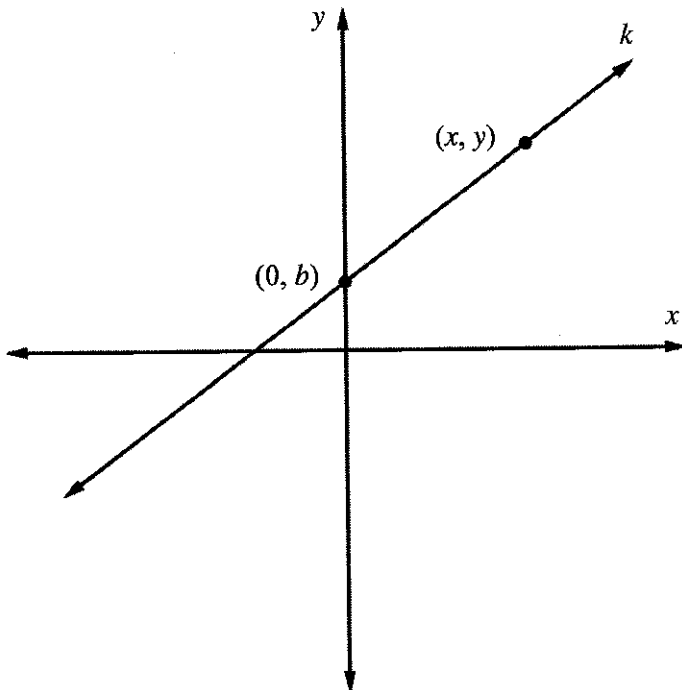
Line j passes through the origin and some point (x, y) . Derive the equation of line j .

2.



3.

Line k passes through $(0, b)$ and some point (x, y) . Derive the equation of line k .

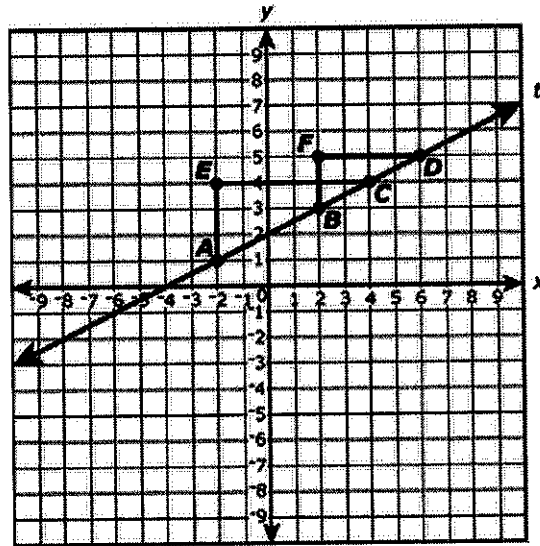


MAFS.8.EE.2.6 FSA PRACTICE



**A CALCULATOR
IS ALLOWED**

1. Line t and $\triangle ECA$ and $\triangle FDB$ are shown on the coordinate plane.



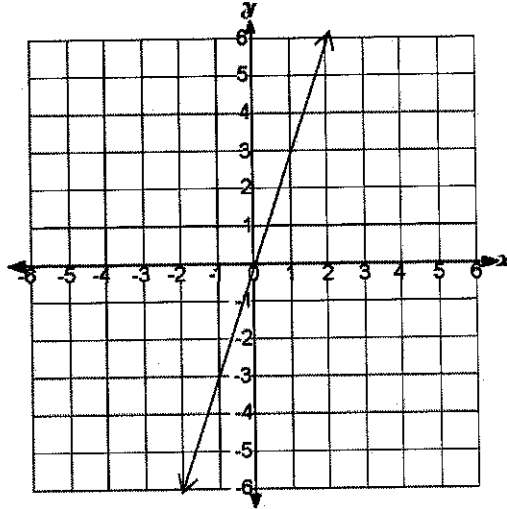
Which statements are true? Select all that apply.

- The slope of \overline{AC} is equal to the slope of \overline{BC} .
- The slope of \overline{AC} is equal to the slope of \overline{BD} .
- The slope of \overline{AC} is equal to the slope of line t .
- The slope of line t is equal to $\frac{EC}{AE}$.
- The slope of line t is equal to $\frac{FB}{FD}$.
- The slope of line t is equal to $\frac{AE}{FD}$.

2. Points A , B , C , and D are collinear. Which of the following must be true?

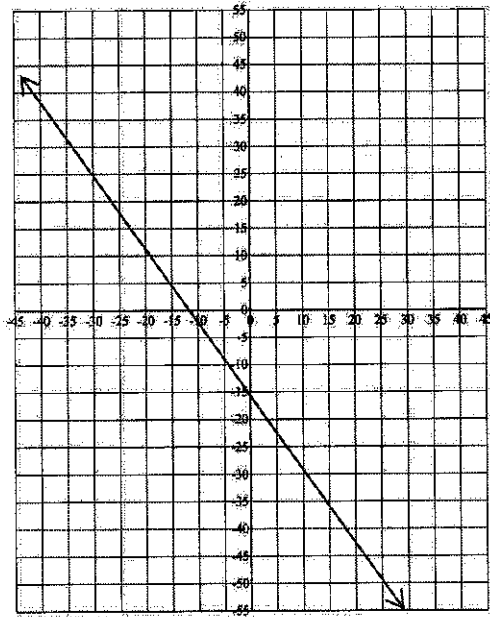
- Ⓐ \overline{AB} and \overline{CD} have the same slope
- Ⓑ $\overline{AB} + \overline{BC} = \overline{CD}$
- Ⓒ \overline{AB} is congruent to \overline{CD}
- Ⓓ \overline{AB} is parallel to \overline{BC}

3. What is the equation of the line below?



← → ↶ ↷ ●										
1	2	3	+	-	•	÷	x	y		
4	5	6	<	≤	=	≥	>			
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\% \square$	π	
0	.	-								

4. What is the equation of the line below?



← → ↶ ↷										
1	2	3	+	-	*	÷	x	y		
4	5	6	<	≤	=	≥	>			
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π	
0	.	-								

MAFS.8.EE.3.7



**A CALCULATOR
IS ALLOWED**

1. Solve the equation shown for x .

$$\frac{2}{3}x - 4\frac{1}{2} = -8$$

2. For each equation, state whether there is *no solution*, *one solution*, or *infinitely many solutions*. Explain your reasoning.

Equation	No solution, One Solution, Infinitely many solutions, or None	Explanation
$3x - 6 = 3(x - 1) - 3$		
$2x + 7 = -2x + 7$		
$2x + 7 = 2x$		

3. Solve the equation shown for x.

$$-3.5(10x - 2) = -176.75$$

4. Solve the equation shown for x.

$$\frac{1}{5}(2x - 10) + 4x = -3\left(\frac{1}{5}x + 4\right)$$

← → ↶ ↷ ↵											
1	2	3	+	-	•	÷					
4	5	6	<	≤	=	≥	>				
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π		
0	.	-									

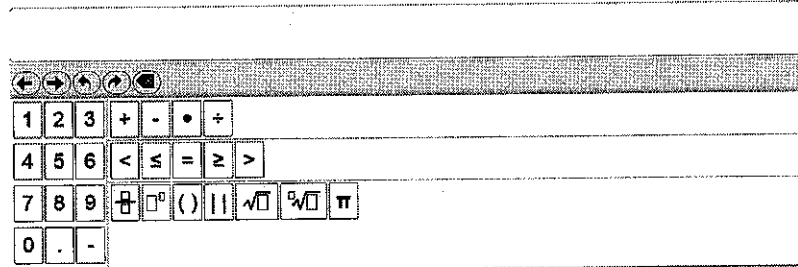
MAFS.8.EE.3.7 FSA PRACTICE



**A CALCULATOR
IS ALLOWED**

1. Solve the equation shown for x.

$$9(3 - 2x) = 2(10 - 8x)$$



2. Solve the equation shown for x.

$$-4(2x + 9) + 3x = 6 - 4(x - 3)$$

3. Select whether each equation has no solution, one solution, or infinitely many solutions.

Equations	No Solution	Exactly 1 Solution	Infinitely Many Solutions
$9 = 4x + 7$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$x + 5 = x + 8$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$y = \frac{x}{2}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$3x + 6y - 9 = 0$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$y = 3y + 5$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. An equation is shown.

$$2j + 7 = 2j + 7$$

How many solutions does the equation have? Explain your reasoning.

5. An equation is shown

$$3x + 10 = 4x + 10$$

How many solutions does the equation have?

- Ⓐ No solution
- Ⓑ 1 Solution
- Ⓒ Infinitely many solutions

MAFS.8.EE.3.8



**A CALCULATOR
IS ALLOWED**

1. For each graph, identify the solution of the graphed system of equations and explain how you know it is the solution.

Graph	Solution & Explanation

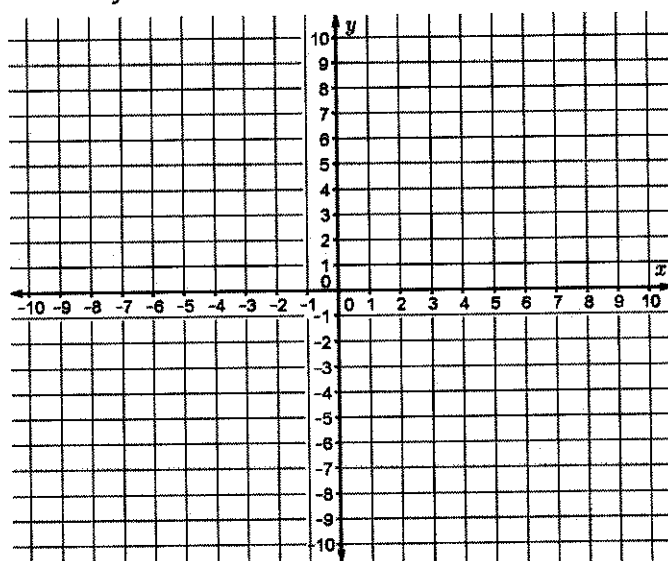
2. Solve each system of linear equations algebraically. Check your solution. Show your work.

$y = x + 5$ $y = 3x - 3$	$-2y = -x + 7$ $8y = 4x + 10$	$y = -3x$ $x + y = 16$
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3. Solve the system of linear equations by graphing.

$$y = -\frac{2}{3}x + 5$$

$$y = -4x - 5$$



Write the solution as an ordered pair and explain why it is a solution.

4. A school is selling t-shirts and sweatshirts for a fund-raiser. The table shows the number of t-shirts and the number of sweatshirts in each of three recent orders. The total cost of orders A and B are given. Each t-shirt has the same cost, and each sweatshirt has the same cost.

Order	Number of T-shirts	Number of Sweatshirts	Total Cost of Order (dollars)
A	2	2	38
B	3	1	35
C	1	2	?

A system of two equations is shown.

$$\begin{cases} 2x + 2y = 38 \\ 3x + y = 35 \end{cases}$$

Part A

What is the cost of 1 t-shirt and 1 sweatshirt?

Part B

Select a choice from each drop-down menu to correctly complete the statement.

In the system of equations, x represents

Choose... ▼

Choose...

the number of t-shirts in the order

the number of sweatshirts in the order

the cost, in dollars, of each t-shirt

the cost, in dollars, of each sweatshirt

and y represents

Choose... ▼

Choose...

the number of t-shirts in the order

the number of sweatshirts in the order

the cost, in dollars, of each t-shirt

the cost, in dollars, of each sweatshirt

Part C

If the system of equations is graphed in a coordinate plane, what are the coordinates (x, y) of the intersection of the two lines? (,)

Part D

What is the total cost, in dollars, of order C? \$

MAFS.8.EE.3.8 FSA PRACTICE



**A CALCULATOR
IS ALLOWED**

1. Select whether each equation has no solution, one solution, or infinitely many solutions.

System of Equations	No Solution	Exactly 1 Solution	Infinitely Many Solutions
$x = y$ $1.25x = 1.25y$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$9.9 = 6x + 8y$ $9x = 2.5y - 8.8$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$11x - 2y = 1.5$ $11x - 2y = 2.5$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$y = -x$ $8y = -8x$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$y = (3x + 1)$ $y = -4$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Two lines are graphed on the same coordinate plane. The lines intersect at the point **(3, 6)**. Which of these systems of linear equations could represent the two lines?

Select all that apply.

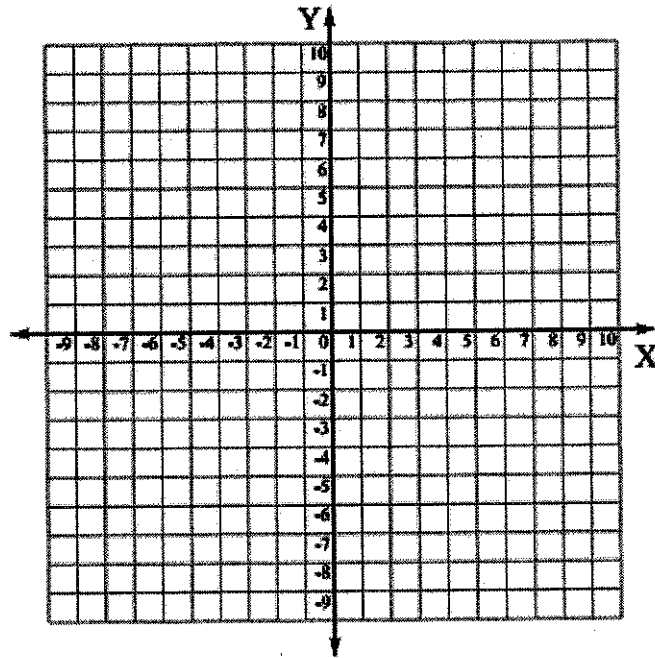
<input type="checkbox"/>	$\begin{cases} x = 3 \\ y = 6 \end{cases}$
<input type="checkbox"/>	$\begin{cases} x = 6 + y \\ y = 3 + x \end{cases}$
<input type="checkbox"/>	$\begin{cases} y = 3x - 3 \\ y = x - 1 \end{cases}$
<input type="checkbox"/>	$\begin{cases} x = 3 + y \\ y = 6 + x \end{cases}$
<input type="checkbox"/>	$\begin{cases} y = x + 3 \\ y = 2x \end{cases}$

3. A system of two equations is shown.

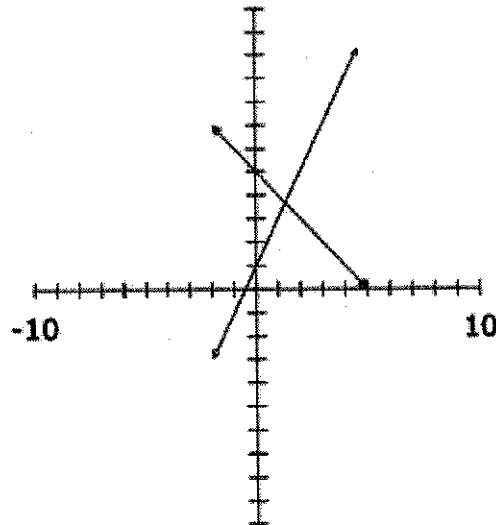
$$y = \frac{1}{3}x - 3$$

$$y = -x + 5$$

Graph the two lines below and identify the solution of the system on the graph.



4. A graph of a system of two equations is shown.



What is the approximate solution of the system?

$x =$

$y =$

5. A system of two equations is shown.

$$\begin{cases} x = 10 \\ 3x + 5y = 20 \end{cases}$$

What is the solution of the system?

x =

y =

6. Cedro bought five games and eight songs for a total cost of \$22.87. Benita bought seven songs and four games for a total cost of \$18.89. The cost of their purchases can be represented by the following equations:

$$5g + 8s = 22.87$$

$$7s + 4g = 18.89$$

Where g is the cost of each game and s is the cost of each song purchased. What was the cost of each game and each song purchased?

MAFS.8.F.1.1



**Neutral – Items Appear on
Calculator and No Calculator
Session**

1. Define the term *function* as completely and precisely as you can.

2. Three relations are described algebraically. In each, x represents an input (the independent variable) and y represents the output (the dependent variable). Decide whether each *is a function* or *is not a function*. Explain why or why not.

Relations	Function -Yes Function -No	Explanation
$-3x + 8 = y$		
$y = x^2 + 3$		
$y^2 = x$		

3. A relation is shown in the table below. In each, x represents an input (the independent variable) and y represents the output (the dependent variable). Decide whether the table *can represent a function* or *cannot represent a function*. Explain why or why not.

Table	Function -Yes Function -No	Explanation														
<table border="1"> <tr><td>3</td><td>-2</td></tr> <tr><td>1</td><td>-1.8</td></tr> <tr><td>5</td><td>-2.2</td></tr> <tr><td>-4</td><td>3</td></tr> <tr><td>-2</td><td>0</td></tr> <tr><td>1</td><td>1.8</td></tr> <tr><td>-6</td><td>3.8</td></tr> </table>	3	-2	1	-1.8	5	-2.2	-4	3	-2	0	1	1.8	-6	3.8		
3	-2															
1	-1.8															
5	-2.2															
-4	3															
-2	0															
1	1.8															
-6	3.8															

4. The graph of a relation is shown below. In each, x represents an input (the independent variable) and y represents the output (the dependent variable). Decide whether the graph represents a function or does not represent a function and justify your decision. If you reference the vertical line test in your justification, explain how and why the vertical line test works.

Graph	Function -Yes Function -No	Explanation

MAFS.8.F.1.1 FSA PRACTICE

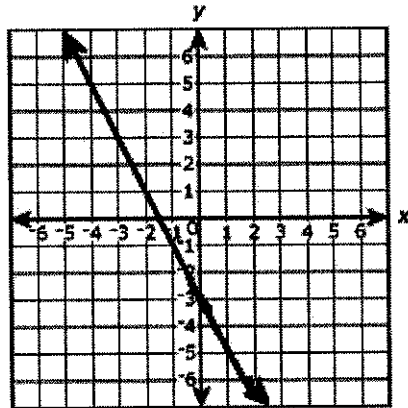

**Neutral – Items Appear on
Calculator and No Calculator
Session**

1. When the input to a function is -2 , the output is 4.

Which statement about this function must be true?

- Ⓐ An input of -2 has infinitely many possible outputs.
- Ⓑ An input of -2 has exactly one possible output.
- Ⓒ An output of 4 has infinitely many inputs.
- Ⓓ An output of 4 has exactly one input.

2. The graph of a function is shown on the coordinate plane. In the graph, y is a function of x .



When the input of the function is -4 , what is the output of the function?

- Ⓐ -5
- Ⓑ -1
- Ⓒ 1
- Ⓓ 5

3. A table that shows the relationship of the values of x and y is shown.

Place the correct number into the correct Input or Output box.

Input	Output
1	4
	6
5	

4. The graph of a relation is shown below. In each, x represents an input (the independent variable) and y represents the output (the dependent variable). Decide whether the graph represents a function or does not represent a function and justify your decision.

Graph	Function -Yes Function -No	Explanation

5. A relation is shown in the table below. In each, x represents an input (the independent variable) and y represents the output (the dependent variable). Decide whether the table *can represent a function* or *cannot represent a function*. Explain why or why not.

Table	Function -Yes Function -No	Explanation														
<table border="1" data-bbox="431 352 644 632"><tbody><tr><td>4</td><td>12</td></tr><tr><td>-1</td><td>-3</td></tr><tr><td>0</td><td>-4</td></tr><tr><td>-5</td><td>-21</td></tr><tr><td>1</td><td>-3</td></tr><tr><td>4</td><td>12</td></tr><tr><td>-2</td><td>0</td></tr></tbody></table>	4	12	-1	-3	0	-4	-5	-21	1	-3	4	12	-2	0		
4	12															
-1	-3															
0	-4															
-5	-21															
1	-3															
4	12															
-2	0															

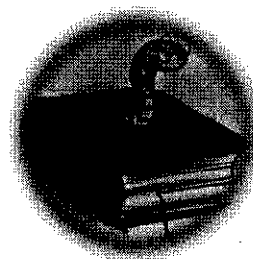
MAFS.8.F.1.2



**A CALCULATOR
IS ALLOWED**

1.

Jordan and Alyssa find out they are reading the same book. Although they will be starting on different page numbers, they decide to record their progress to determine who is the faster reader. Using the results below, determine who is reading at a faster rate. Explain your reasoning.



Jordan's Reading Rate

Reading Time (in hours)	Page Number
2	215
3	260
5	350

Alyssa's Reading Rate

