

FCATCRUNCHTIME REVIEW



1-6



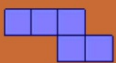
#19-24



7-12



#25-30



#13-18



#31-36

1) What is the value of ab^2 when $a = -2$ and $b = 5$?

a. -100

c. 50

b. -50

d. 100



- 2) The table shows the record high and record low temperatures in Florida.

Florida Extreme Temperatures	
Record High	109°F in Monticello on June 29, 1931
Record Low	-2°F in Tallahassee on February 13, 1899

Which expression represents the difference between these extremes?

- a. $109 + (-2)$ c. $|-2 + 109|$
b. $109 - (-2)$ d. $|109 - 2|$



3) What is the difference between a positive number, x , and its absolute value?

- a. $2x$
- b. $-x$
- c. 0
- d. $|2x|$

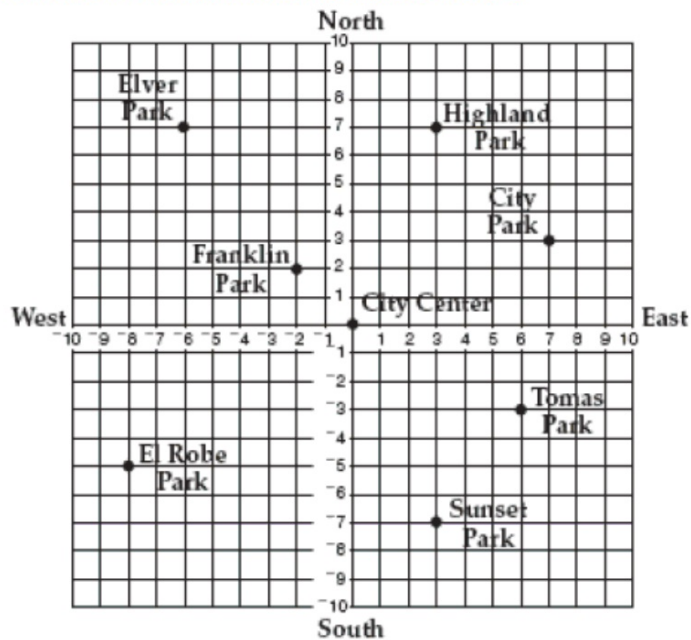


4) Point (5, -2) lies in which quadrant on the coordinate grid?

- a. Quadrant I
- b. Quadrant II
- c. Quadrant III
- d. Quadrant IV



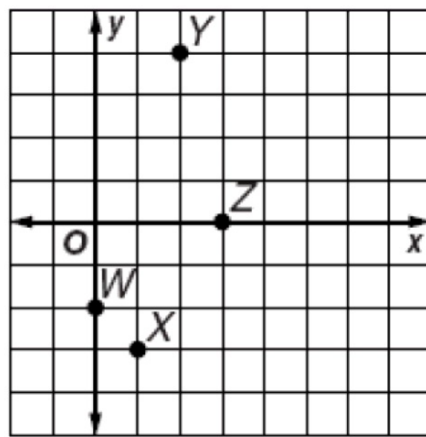
- 5) A city planner used a coordinate grid to show the locations of parks in a city. Which ordered pair describes the location of Elver Park?



- | | |
|------------|-------------|
| a. (6, -3) | c. (-8, -5) |
| b. (7, 3) | d. (-6, 7) |



6) Which of the following points is located at $(1, -3)$?



- | | |
|--------------|--------------|
| a. point W | c. point Y |
| b. point X | d. point Z |



- 7) Karla says that the value of the expression $2 \cdot 3^2 + (-1)^3$ is 35. Su Li says that the value of the expression is 17. Which choice best describes who is right and why?

Karla	Su Li
$2 \cdot 3^2 + (-1)^3 = 6^2 + (-1)^3$	$2 \cdot 3^2 + (-1)^3 = 2 \cdot 9 + (-1)$
$= 36 - 1$	$= 18 - 1$
$= 35$	$= 17$

- a. Karla is right because she used the correct order of operations.
- b. Karla is right because she subtracted 1 from 36.
- c. Su Li is right because she used the correct order of operations.
- d. Su Li got the right answer, but her work is wrong because she did not find $(-1)^3$.



8) What is the value of $12\frac{1}{8} - 9\frac{3}{5}$?

a. $2\frac{21}{40}$

b. $2\frac{3}{5}$

c. $3\frac{19}{40}$

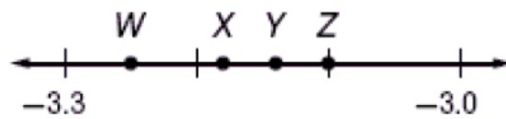
d. $3\frac{21}{40}$



9) What is the value of the expression?
 $12 - 3 \times (1 - 25)$



- 10) The points W , X , Y , and Z represent the numbers $-3\frac{1}{4}$, -3.18 , $-\pi$, and $-3.\overline{1}$ on a number line.



Which point represents $-\pi$?

- a. W
- b. X
- c. Y
- d. Z



11) Which decimal best represents the rational number $\frac{3}{11}$?

- a. 0.3
- b. 0.27
- c. $0.\overline{27}$
- d. $0.\overline{27}$



12) When written as a decimal, which rational number is a repeating decimal?

- a. $-1\frac{3}{4}$
- b. $\frac{3}{8}$
- c. $\frac{7}{15}$
- d. $\frac{5}{4}$



13) In 2006, the population of the United States was about 18 million, or 11 million more than 16 times the population of Florida. If p represents the population of Florida in millions, which equation represents the relationship between the populations of Florida and the United States?

- a. $18 = 16p + 11$
- b. $18 + 11 = 16p$
- c. $11p + 16 = 18$
- d. $18 = 11p + 16$



14) The sum of the digits of a two-digit number is 11 and the difference of the digits is 5. What is the number?

- a. 38
- b. 47
- c. 74
- d. 83



15) What is the solution of the equation?
 $8.2x + 1.5 = 21.5 - 1.8x$

- a. 2
- b. 2.5
- c. 20
- d. 25



16) Which equation is equivalent to $2(3x - 1) = 14 - x$?

- a. $6x - 2 - x = 14$
- b. $6x - 1 + x = 14$
- c. $2(3x - 1) - x = 14$
- d. $6x - 2 + x = 14$



17) Which is another way to express the following equation?

$$15x - 4 = 7 - 12x$$

- a. $-3 = -27x$
- b. $3x = 3$
- c. $3x = 11$
- d. $27x = 11$



SKIP # 18

19) Raj used $\frac{2}{3}$ of his money to buy a used bicycle. He then bought a new helmet for \$45. After buying shin guards with 50% of the remaining amount, Raj had \$2.50. How much did the bicycle cost?

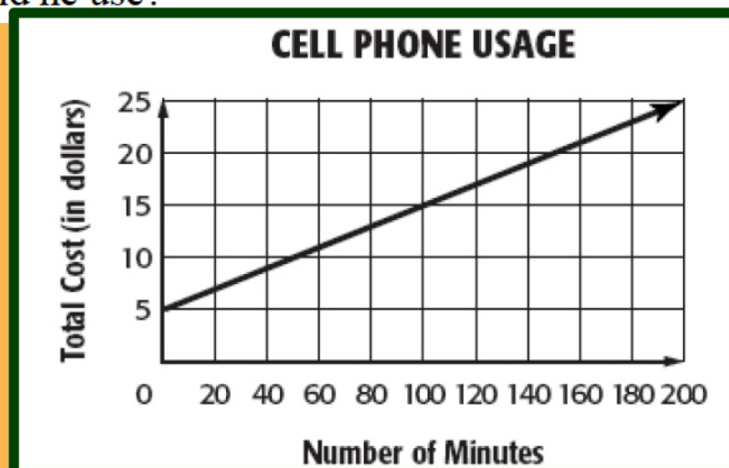
a. \$150.00

b. \$100.00

c. \$50.00

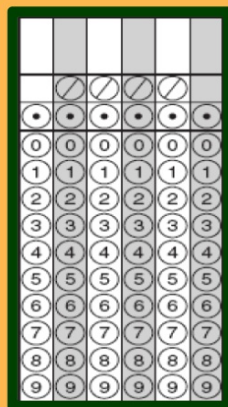
d. \$49.50

- 20) Carlos bought a new cell phone. The graph below represents the relationship between the number of minutes he uses and the total cost. Carlos' latest phone bill was \$21.00. About how many minutes did he use?



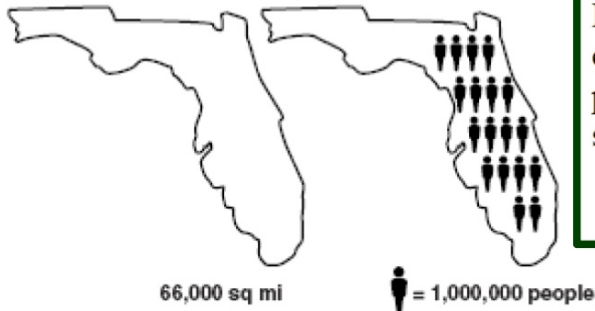
- | | |
|--------------|----------------|
| a. 7 minutes | c. 150 minutes |
| b. 9 minutes | d. 160 minutes |

21) Ms. Gonzalez wanted to buy a book that was on sale for 25% off the original price. The bookstore was offering an additional 20% off to customers who used their store credit card. After all the discounts, Ms. Gonzalez paid \$24.00 for the book. What was the original price in dollars?



- 22) The figure below shows the approximate land area and population of Florida.

AREA AND POPULATION OF FLORIDA



Population density is a rate that indicates how crowded an area is. A proportion is used to find population density, or number of persons per square mile.

$$\frac{\text{population}}{\text{area}} = \frac{\text{number of persons}}{1 \text{ square mile}}$$

Which of the following best describes the approximate population density of Florida, or persons per square mile?

- | | | | |
|----|---------------------|----|---------------|
| a. | less than 250 | c. | about 300 |
| b. | between 250 and 300 | d. | more than 300 |

23) Donna and Cristina are planning a party for their mother. Which of the following items will NOT be proportional to the number of guests?

- a. the amount of food they need
- b. the number of party favors needed
- c. the dimensions of the invitations
- d. the cost of the party

24)

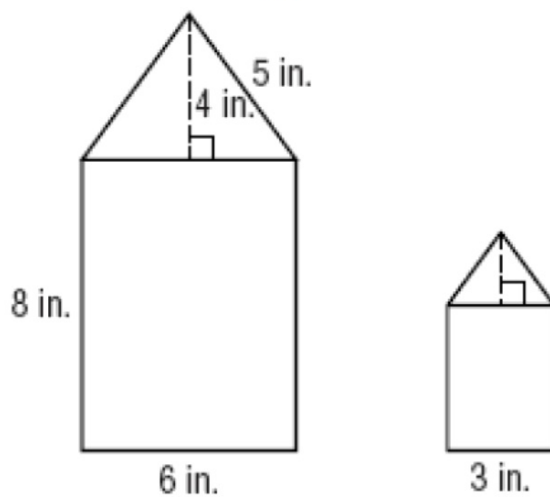
Chef Lopez uses this proportion to find m , the amount of meat, needed to serve p people:

$$\frac{p}{40} = \frac{4 + 2m}{10}$$

How many pounds of meat should Chef Lopez buy to serve 250 people?

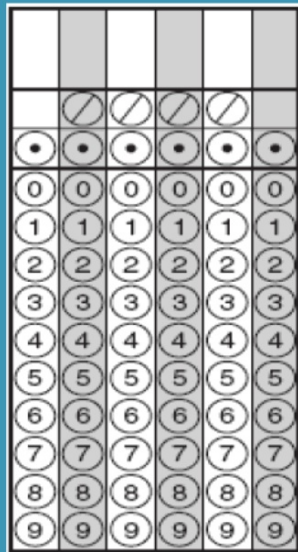
	/	/	/	/	
•	•	•	•	•	•
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

25) The figures below are similar. What is the **total** altitude of the smaller figure?



- a. 2 inches
- b. 4 inches
- c. 6 inches
- d. 12 inches

- 26) A painter took a digital photo of a 16-inch wide by 20-inch long painting to display on his website. The digital image is 2.5 inches long. What is the area of the image in square inches?



27) Which of the following is NOT true of similar figures?

- a. They have the same shape.
- b. They have the same number of sides.
- c. Corresponding sides are proportional.
- d. Corresponding angles are proportional.

- 28) To raise money for their school's athletic program, the Pep Club is planning a spaghetti dinner. Before buying the ingredients for the sauce, they compare unit rates for stewed tomatoes. Which brand will cost the **least**?

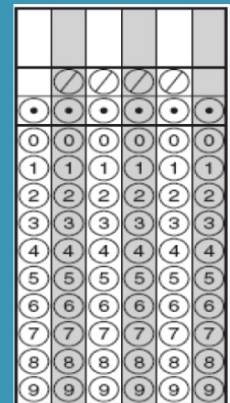
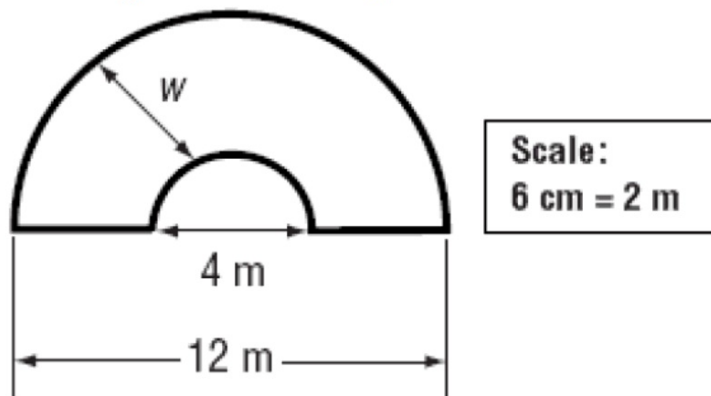
Stewed Tomatoes		
Brand	Can Size	Price
Elite	29 oz	\$1.69 each
Redd's	20 oz	3 for \$4.50
Sun Ripe	20 oz	5 for \$5
Marta's	12 oz	10 for \$10

- a. Elite c. Sun Ripe
b. Redd's d. Marta's

29) Amanda drove 63 miles at a constant speed for 1.5 hours. If she drives at the same speed, how far will she drive in 4.5 hours?

- a. 94.5 miles
- b. 135 miles
- c. 189 miles
- d. 283.5 miles

- 30) Seventh graders are making a scale model of a house and yard. There is a semi-circular driveway with width w , as shown below.



What should be the width, in centimeters, of the driveway on the model?