TEST NAME: **Fall SOY Checkpoint Grade 7 Math Content**
TEST ID: **33**
GRADE: **07 - 08**
SUBJECT: **Mathematics**
TEST CATEGORY: **Start of Year Checkpoint**

08/10/20, Fall SOY Checkpoint Grade 7 Math Content

Student: _____

Class: _____

Date: _____

Instructions

The Grade 7 Math test has two subparts. Each subpart contains different types of questions. To begin the test, click the "Next" arrow button at the top.

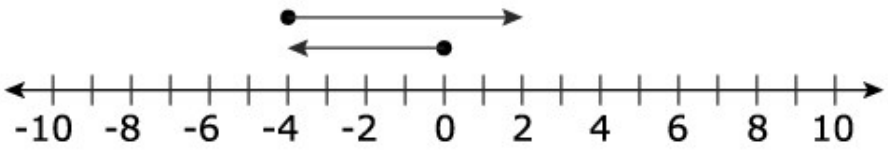
Read the passage - 'VH987323_directions' - and answer the question below:

VH987323_directions

Subpart 1 of this test contains different types of assessment questions in Grade 7 Math. You may make notes on scratch paper or use the Notepad tool within the online test. Make sure you answer all the questions. You MAY NOT use a calculator in Subpart 1 of this test.

1. Which number line represents $4 + -6$?

A.



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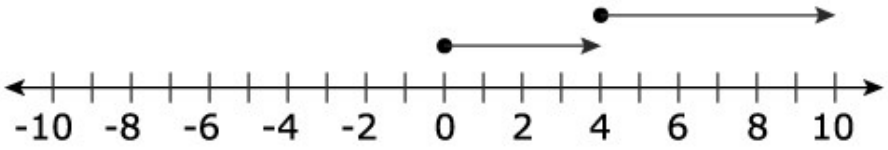

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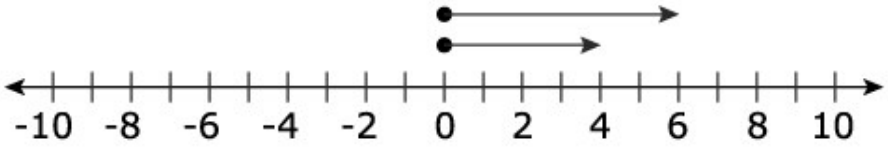

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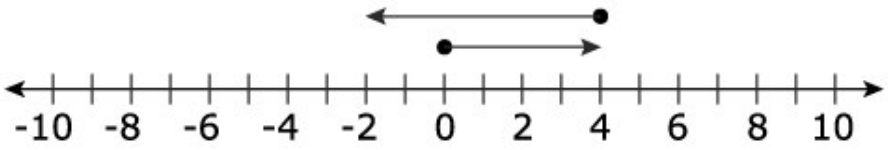

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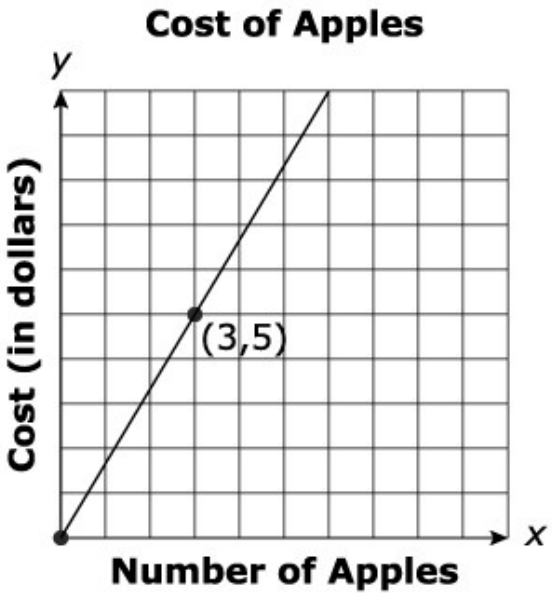
2. The graph shows the relationship between the number of apples and their cost.



For the point $(1, r)$, what is the value of r?

A. 1

B. $\frac{3}{5}$

C. $\frac{5}{3}$

D. 2

3. What is the value of the expression $-2(-3 + -1)$?

A. -8

B. -7

C. 5

D. 8

4. Ezra and Sophie are planning a picnic for a group of friends.

- They have $100 to spend.
- They will buy one large salad for $28.50.
- They will also buy some sandwiches for $4.85 each.

Ezra thinks they can buy at least 20 sandwiches, but Sophie thinks they can buy no more than 14 sandwiches.

Which estimation strategy will show who is correct?

A. Each sandwich costs about $5, so 20 sandwiches cost about $100, so Ezra is right.

B. Each sandwich costs about $5, so 14 sandwiches cost about $70, so Sophie is right.

C. Each sandwich costs about $4, so 20 sandwiches cost about $80, so Ezra is right.

D. Each sandwich costs about $4, so 14 sandwiches cost about $55, so Sophie is right.

5. Which equation represents a proportional relationship?

A. $y = 5x - 2$

B. $y = \frac{3}{4}x - \frac{3}{4}$

C. $y = x^2$

D. $y = 7.8x$

6. Which situation can **best** be modeled by the expression $10(-4)$?

A. A store has 10 hats. Then they sell 4 hats. How many hats remain?

B. A babysitter earns $\$10$ per hour working for 4 hours. How much does the babysitter earn?

C. A library has 10 computers. Then they buy 4 more computers. How many computers in all does the library have?

D. A scuba diver swims down 4 feet per minute for 10 minutes. In feet, where is the scuba diver compared to the surface of the water?

7. The manager of a toy store needs to determine what types of items his customers are most interested in buying. The manager conducted two random surveys. The survey results are shown in the table.

	Sample 1	Sample 2
Board Games	22	28
Toy Cars and Trucks	30	20
Balls and Sporting Equipment	48	52
Total	100	100

Select the **two** inferences that can be made based on the given data.

Pick up to 2 answers.

A. The store manager should order more board games than both of the other types of items combined.

B. The store manager should order more toy cars and trucks than either of the other types of items.

C. The store manager should order more balls and sporting equipment than either of the other types of items.

D. The store manager should order approximately half as many balls and sporting equipment as toy cars and trucks.

E. The store manager should order approximately twice as many balls and sporting equipment as toy cars and trucks.

8. The point $(10, 4)$ is located on a line that shows a proportional relationship.

Which of the following points must also be located on the line?

A. $(8, 2)$

B. $(2.5, 0)$

C. $(8, 20)$

D. $(1, 0.4)$

9. An expression is shown.

$-20.75 + 14.5$

What is the value of the expression?

A. 32.25

B. 6.25

C. -6.25

D. -35.25

10. Beth used her calculator to multiply 19 by 0.2, and her answer was 38.

What mental check can Beth use to test whether her answer makes sense?

A. Multiplying by 0.2 is the same as multiplying by 5, so her answer should be close to 20 times 5.

B. Multiplying by 0.2 is the same as dividing by 5, so her answer should be close to 20 divided by 5.

C. Multiplying by 0.2 is the same as multiplying by 2, so her answer should be close to 20 times 2.

D. Multiplying by 0.2 is the same as dividing by 2, so her answer should be close to 20 divided by 2.

11. Cierra is playing a game on a number line. Her game piece is on the number 3. She picks a card that says “move 8 spaces.”

Select **all** the numbers that are 8 spaces from Cierra’s current position.

Pick up to 5 answers.

A. 11

B. 8

C. -4

D. -5

E. -8

Read the passage - 'VH987240_directions' - and answer the question below:

VH987240_directions

Subpart 2 of this test contains different types of assessment questions in Grade 7 Math. You may make notes on scratch paper or use the Notepad tool within the online test. Make sure you answer all the questions. You MAY use a calculator in Subpart 2 of this test.

12. The table shows a proportional relationship between x and y.

x	y
2	3.6
5	9
6	10.8
10	18

Which equation could be used to represent the relationship shown in the table?

A. $y = \frac{1}{8}x$

B. $y = \frac{5}{9}x$

C. $y = 1.8x$

D. $y = 3.6x$

13. A box contains 4 colors of buttons. Karen randomly selected a button from the box, recorded the color, and then put the button back in the box. She selected a button 80 times. Karen forgot to record the number of times she selected a red button.

BUTTON COUNTS

Color	Number of Times Selected
Red	?
Green	12
Blue	15
Orange	23

What is the probability of selecting a red button from the box?

A. 0.275

B. 0.325

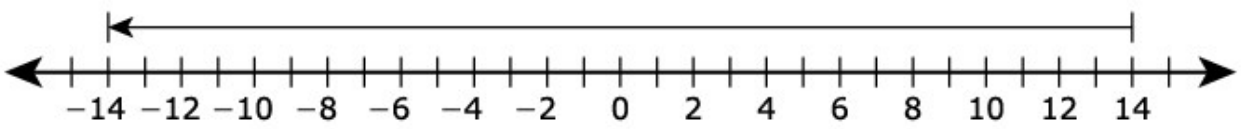
C. 0.375

D. 0.625

14. The temperature in Nome, Alaska, dropped 14°F during one day.

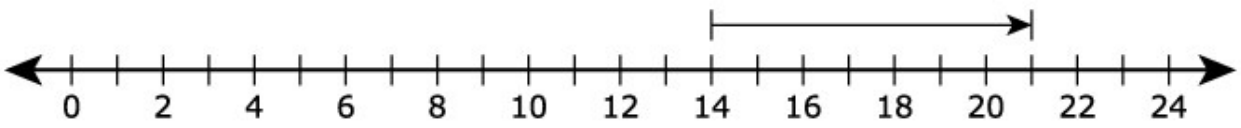
Which number line shows this change in temperature?

A.

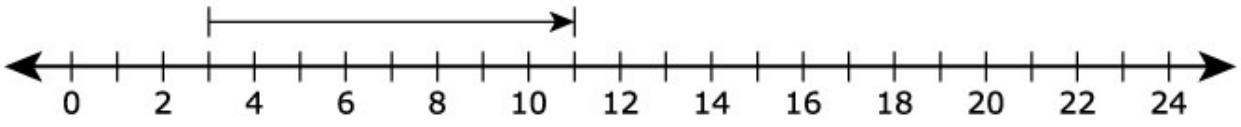


B.

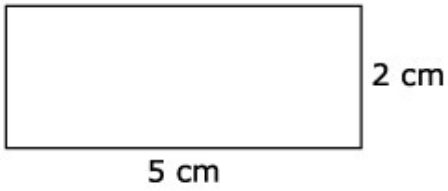
C.



D.



15. A rectangle is shown. The rectangle will be enlarged by a scale factor of 1.5.



What will be the perimeter of the enlarged rectangle?

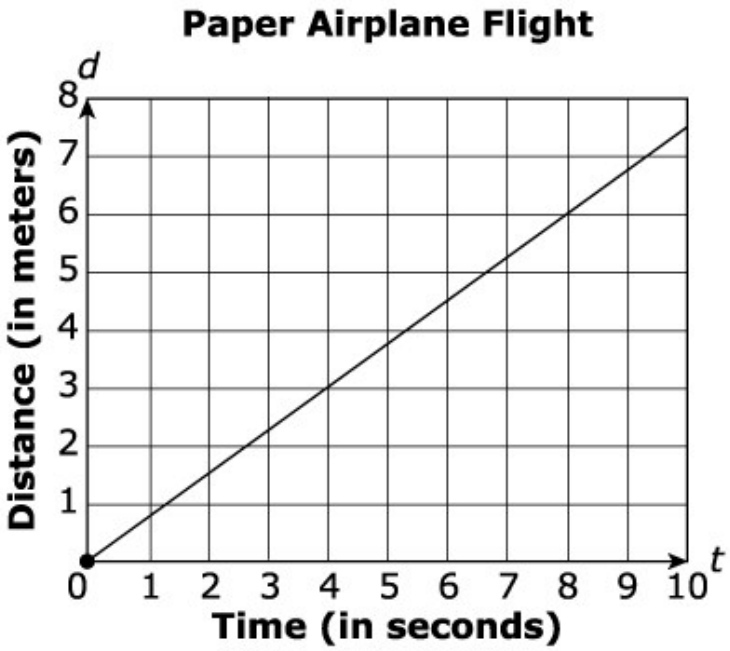
A. 10.5 cm

B. 14 cm

C. 21 cm

D. 22.5 cm

16. The graph shows the distance that a paper airplane flew compared to how long it was in the air.



What is the constant of proportionality?

A. 1 meter for every 1 second

B. 1 meter for every $\frac{4}{3}$ of a second

C. 1 meter for every $\frac{3}{4}$ of a second

D. 1 meter for every $1\frac{1}{2}$ seconds

17. In an experiment, researchers record the amount of time it takes for a dog to navigate through a maze and find a treat. The observed times, in seconds, are:
57, 57, 68, 72, 74, 77, 80, 88, 96, 105.

What is the interquartile range of the observed times?

A. 20 seconds

B. 48 seconds

C. 68 seconds

D. 75.5 seconds

18. Jim works 34 hours and earns $9.25 per hour. He spends $120.75 on a skateboard.

How much does Jim have left from his earnings after buying his skateboard?

A. $164.00

B. $193.75

C. $228.50

D. $435.25

19. Which is always true about the quotient of two integers, x and y, expressed as $\frac{x}{y}$?

A. It is positive if both x and y are negative.

B. It is negative if both x and y are negative.

C. It is positive if y is greater than x.

D. It is negative if y is greater than x.

20. Caitlin is making oatmeal cookies.

- She wants to make $1\frac{1}{2}$ batches.
- Each batch of cookies requires $2\frac{1}{2}$ cups of oatmeal.
- She has $3\frac{1}{4}$ cups of oatmeal.

How many more cups of oatmeal does Caitlin need?

A. $\frac{1}{2}$ cup

B. $\frac{3}{4}$ cup

C. $1\frac{1}{4}$ cups

D. $3\frac{3}{4}$ cups

21. On a school field trip there are 36 boys and a number of girls.

If 40% of the students are girls, how many girls are on the field trip?

A. 24

B. 32

C. 40

D. 60