Name: _____

1.

Arianna runs up 4 flights of stairs and then runs down 4 flights of stairs.

Does this situation represent additive inverses? Explain.

 A. Yes; The numbers combine to eight.

 B. Yes; The numbers combine to zero.

 C. No; The numbers are both represented by the same integer.

 D. No; The numbers cannot be added together.

2.

Four out of nine dogs weigh less than 20 pounds.

What is the decimal equivalent for the number of dogs weighing less than 20 pounds?

 A. $0.\overline{2}$

 B. 0.24

 C. $0.\overline{4}$

 D. 0.49

Andy is scuba diving. He starts at sea level and then descends 10 feet in $2\frac{1}{2}$ minutes.

3. **Part A**

How would you represent Andy's descent as a unit rate? Express your feet/per minute answer as an integer.

A. 4 B. -4 C. 5 D. -5

4. **Part B**

If he continues at this rate, where (in feet) will Andy be in relation to sea level after 6 minutes?

 A. 24 B. -24 C. 30 D. -30

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5. Which number is less than $-\frac{8}{3}$?

A. $-2.\overline{6}$

B. -2.76

C. $-2\frac{1}{4}$

D. -2

6.

Javier had $305 in his bank account. His bank charges a fee of $7.50 each month that a balance is below $500.

If he makes no other deposits or withdrawals, how much money is in Javier's account at the end of three months?
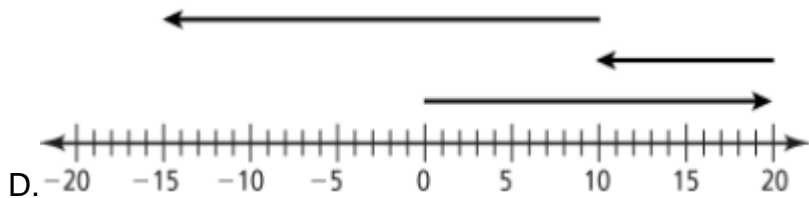
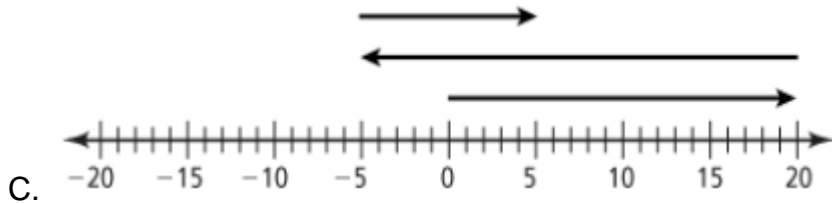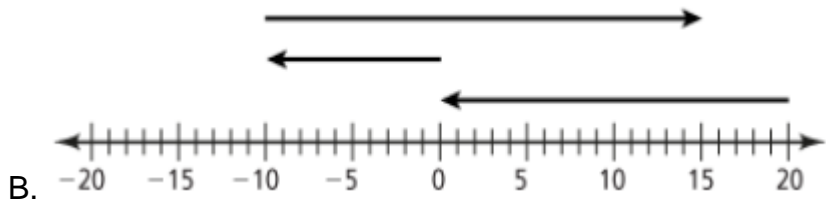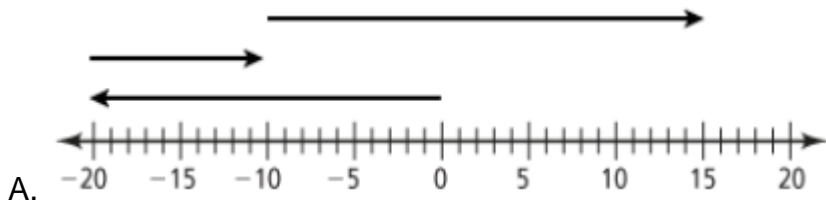 A. $312.50 B. $305 C. $297.50 D. $282.50

7.

In the first round of a card game, Niki scored 20 points.
Then, she lost 10 points on one turn and an additional 25 points on her final turn.

Part A
Choose the number line that shows **the change** in Niki's score.

A.

B.

C.

D.

8. Part B
What is Niki's **final score**?

   A. 15 points B. – 10 points   C. 5 points   D. – 15 points

9.
Which expression is equivalent to the distance **between –13 and –4** on a number line?

A. $|-13 + (-4)|$

B. $|-13 - (-4)|$

C. $|-13 - 4|$

D. None of the above

10.
A catering company loses $110 as a result of a delay.
The 5 owners of the company must share the loss equally.
Which integer represents **the change in profit** for each owner?

A. –$22.00
B. –$0.50
C. $0.20
D. $5.00

11.
A marathon is 26.2 miles long. There is a water station every $1\frac{31}{100}$ miles along the race route.
Which expression represents **the total number** of water stations?

A. $26.2 - 1\frac{31}{100}$

B. $26.2 + 1\frac{31}{100}$

C. $26.2 \div 1\frac{31}{100}$

D. $26.2\left(1\frac{31}{100}\right)$

12.
A scientist builds a Mars rover that can travel 4.9 centimeters per second on flat ground.

If the rover continues at the same rate, **how many centimeters** will it travel in $15\frac{1}{2}$ seconds?

A. 4.9 cm   B. 20.4 cm   C. 73.5 cm   D. 75.95 cm

13.
Carl and Cameron are at a pool.
Carl dives in and touches the bottom of the pool, 15 feet below the surface of the water.
Cameron is standing on a diving platform 2 feet above the surface, waiting for his turn.

What is the vertical distance between Carl's hand and Cameron's feet?

A.   13 feet   B.   – 13 feet   C.   17 feet   D.   – 17 feet

Josiah downloads 44 songs, including 16 songs by his favorite band.

14. Part A
Express as a decimal the number of songs by his favorite band that Josiah downloaded out of the total number of downloads.

A. 0.36   B. 0.363636….   C. 2.75   D. 28.0

15. Part B
Is the decimal terminating **or** repeating?

A. terminating   B. repeating   C. neither   D. both