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Number System

1. Use properties of operations to find the quotient.

$$13.803 \div 2.58$$

- A. 11.223
 B. 5.35
 C. 5.885
 D. 1.3803
-

2. Use properties of rational numbers to multiply the following.

$$\frac{3}{13} \times 143$$

- A. 103
 B. 26
 C. 90
 D. 33
-

3. Use properties of operations to find the quotient.

$$\frac{3}{7} \div 2.5$$

- A. $\frac{6}{35}$
 B. $5\frac{5}{6}$
 C. $1\frac{1}{14}$
 D. $\frac{6}{77}$
-

4. Griffin ordered a pair of sneakers online. He had a \$15 credit that he applied toward the purchase, and then he used a credit card to pay for the rest of the cost. If the shoes cost \$56, how much did Griffin charge to his credit card when he bought the sneakers?

- A. \$71
 B. \$41
 C. \$26
 D. \$86
-

5. Use properties of rational numbers to simplify the expression.

$$(26 - 9.13) - (185.4 + 6)$$

- A. 208.53
 B. 196.53
 C. -174.53

- D. -156.27

6. Garnet has a container with $11\frac{1}{2}$ cups of flour in it. She can make one dozen muffins with $2\frac{1}{2}$ cups of flour. How many dozens of muffins can Garnet make with the flour she has?

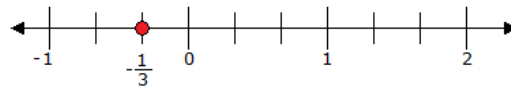
- A. $4\frac{1}{2}$
- B. $28\frac{3}{4}$
- C. $4\frac{3}{5}$
- D. 9

7. Use properties of rational numbers to multiply the following.

$$-\frac{14}{5} \times \left(-\frac{51}{69}\right)$$

- A. $\frac{357}{37}$
- B. $-\frac{407}{115}$
- C. $\frac{322}{85}$
- D. $\frac{238}{115}$

8.



Which of the following number lines shows the correct sum of the number above and $\frac{5}{3}$?

- A.

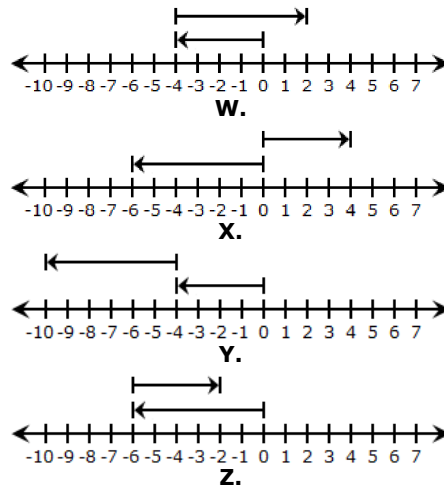
A number line from -1 to 2 with tick marks every 1/3. A purple dot is placed at the first minor tick mark to the right of 0, labeled $\frac{1}{3}$.
- B.

A number line from -1 to 2 with tick marks every 1/6. A purple dot is placed at the fourth minor tick mark to the right of 0, labeled $\frac{4}{6}$.
- C.

A number line from -1 to 2 with tick marks every 1/3. A purple dot is placed at the major tick mark labeled 2.
- D.

A number line from -1 to 2 with tick marks every 1/3. A purple dot is placed at the second minor tick mark to the right of 1, labeled $\frac{4}{3}$.

9. Which model represents $-4 - 6$?



- A. Z
- B. W
- C. Y
- D. X

10. Ben weighs 138.3 pounds, and Jennifer weighs 117.5 pounds. How many more pounds does Ben weigh than Jennifer?

- A. 19.8
- B. 20.8
- C. 20.4
- D. 21.4

11. Use properties of operations to find the quotient.

$$1.07\bar{5} \div \left(-\frac{86}{55}\right)$$

- A. $-\frac{1,849}{1,100}$
- B. $-\frac{16}{11}$
- C. $-\frac{11}{16}$
- D. $-\frac{1,100}{1,849}$

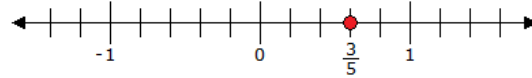
12. Lindsey went skydiving. When she jumped out of the plane, its elevation was 13,000 feet. She was in free-fall for 10,000 feet, and then she deployed her parachute. At what elevation did Lindsey deploy her parachute?

- A. -3,000 feet
- B. 16,000 feet
- C. -16,000 feet
- D. 3,000 feet

13. Tyrone's bank account had a balance of -\$91.47 last week. His paycheck of \$344.42 was deposited this week. If there have been no other transactions, which of the following is true?

- A. Tyrone's current account balance is \$252.95.
- B. Tyrone's current account balance is -\$435.89.
- C. Tyrone's current account balance is -\$252.95.
- D. Tyrone's current account balance is \$435.89.

14.



Which of the following number lines shows the correct sum of the number above and $\frac{4}{5}$?

- A.
- B.
- C.
- D.

15. Cady found that she uses $\frac{1}{6}$ of a roll of paper towels each week. How many rolls of paper towels will she use in 8 weeks?

- A. 48
- B. $1\frac{1}{3}$
- C. $2\frac{1}{3}$
- D. 14

16. Use properties of rational numbers to multiply the following.

$$-10 \times (-40)$$

- A. 200
- B. 400
- C. -200
- D. -400

17. Use properties of operations to find the quotient.

$$-11 \div (-1.76)$$

- A. 0.16
- B. 6.25

- C. -12.76
- D. 19.36

18. Use properties of rational numbers to simplify the expression.

$$\frac{2}{5} + \frac{7}{15} + \frac{1}{5}$$

- A. $\frac{1}{2}$
- B. $\frac{4}{5}$
- C. $\frac{2}{3}$
- D. $1\frac{1}{15}$

19. Chester has a coupon for $\frac{3}{10}$ off the price of a shirt. If the shirt originally costs \$33.00, what discount would Chester receive from using his coupon?

- A. \$0.91
- B. \$9.90
- C. \$23.10
- D. \$19.80

20. Use properties of rational numbers to multiply the following.

$$-4.4 \times (-17.4)$$

- A. -7.656
- B. -76.56
- C. 76.56
- D. 7.656

21.



Which of the following number lines shows the correct sum of the number above and 1.9?

- A.

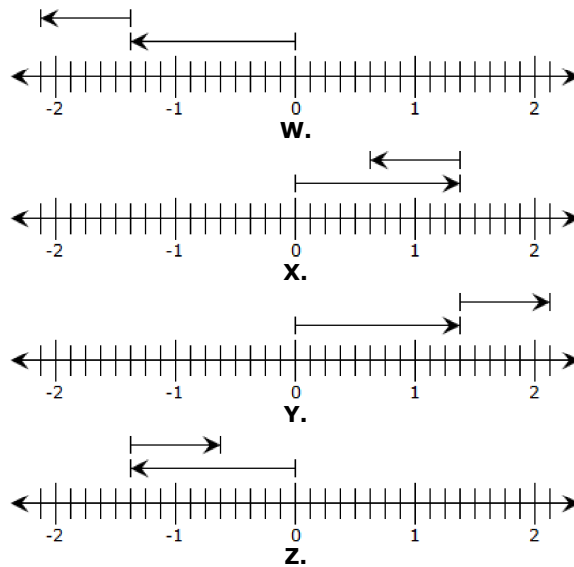
A number line with arrows at both ends. Tick marks are labeled at -6, -5, -4, and -3. A blue dot is placed on the line between -4 and -3, specifically at the value -3.4.
- B.

A number line with arrows at both ends. Tick marks are labeled at -6, -5, -4, and -3. A blue dot is placed on the line between -4 and -3, specifically at the value -3.6.
- C.

A number line with arrows at both ends. Tick marks are labeled at -6, -5, -4, and -3. A blue dot is placed on the line between -5 and -4, specifically at the value -4.4.
- D.

A number line with arrows at both ends. Tick marks are labeled at -6, -5, -4, and -3. A blue dot is placed on the line between -5 and -4, specifically at the value -4.6.

22. Which model represents $\frac{11}{8} + \frac{3}{4}$?



- A. X
- B. Y
- C. Z
- D. W

23. Stuart's bank account had a balance of - \$41.23 last month. This month he won a cash prize of \$72.93 for winning a competition. How much money does Stuart have at the end of this month, if there are no other transactions?

- A. Stuart's account balance is \$31.7.
- B. Stuart's account balance is - \$31.7.
- C. Stuart's account balance is \$114.16.
- D. Stuart's account balance is - \$114.16.

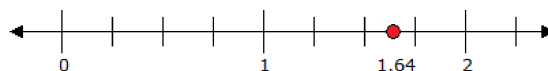
24. The temperature of a city at sunset was -3°F . Overnight, the temperature decreased by 11°F . What was the lowest temperature overnight in that city?

- A. -8°F
- B. -14°F
- C. 14°F
- D. 8°F

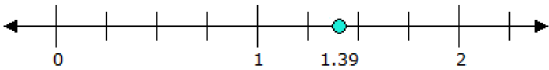
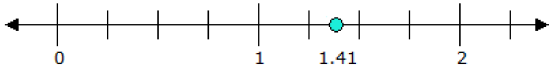
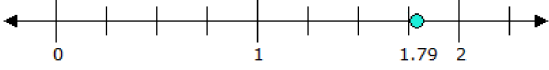
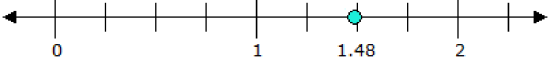
25. George drinks 56.37 fluid ounces of water per day. How much water does he drink in 6 days?

- A. 281.85 fluid ounces
- B. 62.37 fluid ounces
- C. 394.59 fluid ounces
- D. 338.22 fluid ounces

26.



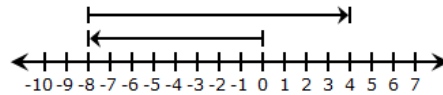
Which of the following number lines shows the correct sum of the number above and -0.25 ?

- A. 
- B. 
- C. 
- D. 

27. The average temperature of Kopikoville was reported to be -17° last year. This year, the average temperature of Kopikoville rose by 5° . Which of the following is true about this year's average temperature of Kopikoville?

- A. This year's average temperature of Kopikoville is -12° .
- B. This year's average temperature of Kopikoville is 12° .
- C. This year's average temperature of Kopikoville is 22° .
- D. This year's average temperature of Kopikoville is -22° .

28. Which expression is represented by the model below?



- A. $-8 + 4$
- B. $-8 + (-4)$
- C. $-8 + (-12)$
- D. $-8 + 12$

29. A ferry carries passengers a distance of $3\frac{5}{8}$ miles across a river. The ferry made 6 trips across the river in one day. Which of the following is true?

- A. The ferry traveled $12\frac{3}{7}$ total miles in one day.
- B. The ferry traveled $38\frac{2}{3}$ total miles in one day.
- C. The ferry traveled $21\frac{3}{4}$ total miles in one day.
- D. The ferry traveled $16\frac{4}{7}$ total miles in one day.

30. Use properties of operations to find the quotient.

$$-11.7 \div 9$$

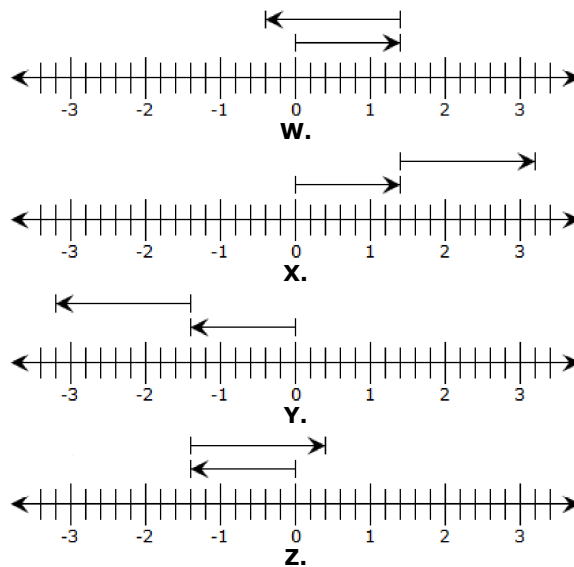
- A. -1.3
- B. 2.7
- C. 1.3
- D. -2.7

31. Use properties of operations to find the quotient.

$$-2\frac{2}{5} \div \left(-2\frac{1}{2}\right)$$

- A. $\frac{24}{25}$
- B. 6
- C. $1\frac{1}{24}$
- D. $-4\frac{9}{10}$

32. Which model represents $1.4 + 1.8$?



- A. W
- B. X
- C. Y
- D. Z

33. Fredo has a coupon for \$1.00 off the price of a loaf of bread at the grocery store. After he arrived at the store, he found out the bread had already been marked down \$2.00. What is the total discount on the price of the bread?

- A. \$3.00
- B. \$1.00
- C. -\$3.00
- D. -\$1.00

34. Barney has $20\frac{2}{3}$ feet of lumber that he is going to cut into 4 equal pieces for a border on his garden. Which of the following is true?

- A. Each piece of lumber is $16\frac{2}{3}$ feet long.

- B. Each piece of lumber is $5\frac{1}{8}$ feet long.
 - C. Each piece of lumber is 5 feet long.
 - D. Each piece of lumber is $15\frac{1}{2}$ feet long.
-

35. A scuba diver descended $11\frac{5}{12}$ feet below sea level. Then, he descended another $3\frac{2}{5}$ feet. Which of the following is true about the scuba diver after both descents?

- A. The location of the scuba diver in relation to sea level was $-14\frac{49}{60}$ feet.
 - B. The location of the scuba diver in relation to sea level was $14\frac{49}{60}$ feet.
 - C. The location of the scuba diver in relation to sea level was $-8\frac{1}{60}$ feet.
 - D. The location of the scuba diver in relation to sea level was $8\frac{1}{60}$ feet.
-

Answers

- 1. B
- 2. D
- 3. A
- 4. B
- 5. C
- 6. C
- 7. D
- 8. D
- 9. C
- 10. B
- 11. C
- 12. D
- 13. A
- 14. A
- 15. B
- 16. B
- 17. B
- 18. D
- 19. B
- 20. C
- 21. A
- 22. B
- 23. A
- 24. B
- 25. D
- 26. A
- 27. A
- 28. D
- 29. C
- 30. A
- 31. A
- 32. B
- 33. C
- 34. B
- 35. A

