Unit 1: Rational Numbers

Directions: Choose the letter of the best answer.

1. Which fraction can be expressed as a terminating decimal? (17.NS.2)

   a. $\frac{1}{6}$
   b. $\frac{3}{8}$
   c. $\frac{2}{3}$
   d. $\frac{1}{9}$

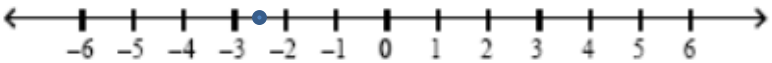
2. What fraction can be expressed as a repeating decimal? (17.NS.2)

   a. $\frac{1}{9}$
   b. $\frac{1}{4}$
   c. $\frac{3}{8}$
   d. $\frac{2}{10}$

3. Which shows the fraction $\frac{1}{3}$ as a decimal? (17.NS.2)

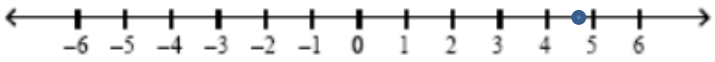
   a. $0.\overline{32}$
   b. 0.3
   c. $0.\overline{3}$
   d. $0.\overline{3}2$

4. Estimate the number that is represented on the number line. (53.T.NS.5)



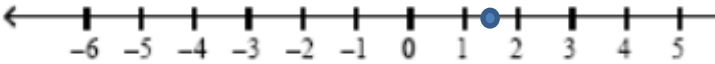
   a. -3.5
   b. -3.25
   c. -2.5
   d. -2.0

5. Estimate the number that is represented on the number line. (53.T.NS.5)



   a. $4\frac{1}{4}$
   b. $4\frac{3}{4}$
   c. 5
   d. $5\frac{1}{4}$

6. What is the opposite of the number represented on the number line?



   a. $2\frac{1}{2}$
   b. $1\frac{1}{2}$
   c. $-2\frac{1}{2}$
   d. $-1\frac{1}{2}$

7. An airplane is flying at 2000 ft. What rational number represents the elevation of the airplane?

   a. – 2000 ft.
   b. $\frac{1}{2000}$
   c. 2000 ft.
   d. 20,000 ft.

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8. The temperature is 5 degrees below zero. Which rational number represents the temperature? (52.T.NS.5)

   a. 5
   b. $|5|$
   c. $\frac{1}{5}$
   d. -5

9. Maria opened a bank account and made a deposit of $20. What rational number represents her account balance? (52.T.NS.5)

   a. -20
   b. 20
   c. $\frac{1}{20}$
   d. $|20|$

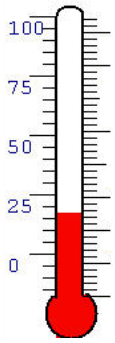
10. A dolphin is swimming 25ft below sea level. What rational number represents his depth? (52.T.NS.5)

    a. 25
    b. $\frac{1}{25}$
    c. $|25|$
    d. -25

11. The valley at the bottom of the mountain range is 128 ft below sea level. What rational number represents the elevation of the valley? (52.T.NS.5)

    a. -128
    b. $|128|$
    c. $\frac{1}{128}$
    d. 128

12. What rational number represents the temperature shown on the thermometer? (52.T.NS.5)



    a. -17
    b. 15
    c. 17
    d. 20

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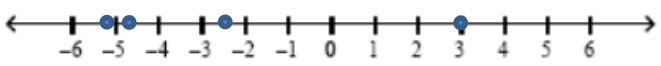
13. Which inequality statement represents the values marked on the number line? (58.T.NS.7)



a. -5.25 > -2.5
b. -0.25 < -1.5
c. 3 < -4.75
d. -1.5 > -4.75

14. On a number line, point *R* lies to the left of point *S* and point *T* lies to the left of point *R*. What can you conclude? (58.T.NS.7)

a. $R < S < T$
b. $R < T < S$
c. $T < R < S$
d. $T < S < R$

15. Compare $4\frac{1}{4}$. , 4.5 , and $4\frac{2}{3}$. (58.T.NS.7)

a. $4\frac{1}{4} > 4.5 > 4\frac{2}{3}$
b. $4\frac{1}{4} < 4.5 < 4\frac{2}{3}$
c. $4\frac{2}{3} < 4.5 < 4\frac{1}{4}$
d. $4.5 > 4\frac{1}{4} > 4\frac{2}{3}$

16. Which statement is not true? (58.T.NS.7)

a. $\frac{1}{2} < 60\% < 0.9$
b. $-2 < -\frac{1}{3} < -0.01$
c. $-\frac{1}{2} < -2\frac{3}{5} < \frac{1}{25}$
d. $0.005 < \frac{1}{100} < 2\,\%$

17. Four runners finished a race in 46.5 seconds, 44.85 seconds, 44.7 seconds, and 45.75 seconds. Order the runners' times from first to fourth place. (59.T.NS.7)

a. 44.85, 44.7, 45.75, 46.5
b. 44.7, 45.75, 44.85, 46.5
c. 44.7, 44.85, 45.75. 46.5
d. 46.5, 45.75, 44.85, 44.7

18. Over the course of five days, the price of a stock rose each day by the following amounts. How are these changes in price ordered from greatest to least? (59.T.NS.7)

$$\frac{3}{10},\ \frac{1}{2},\ 1,\ 1\frac{1}{8},\ \frac{1}{8}$$

a. $1\frac{1}{8}, \frac{1}{2}, 1, \frac{1}{8}, \frac{3}{10}$
b. $1\frac{1}{8}, 1, \frac{1}{2}, \frac{3}{10}, \frac{1}{8}$
c. $1, 1\frac{1}{8}, \frac{1}{2}, \frac{3}{10}, \frac{1}{8}$
d. $1, \frac{1}{2}, \frac{3}{10}, \frac{1}{8}, 1\frac{1}{8}$

19. The low temperature over four January days in Danville were -5 , 1.5 , 1.2 , and -2.5 degrees Fahrenheit. How are these temperatures ordered from coldest to warmest? (59.T.NS.7)

a. 1.5 , 1.2 , -2.5 , -5
b. -5 , -2.5 , 1.5 , 1.2
c. -5 , -2.5 , 1.2 , 1.5
d. -2.5 , -5 , 1.2 , 1.5

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20. How are 0.4, 25%, -1 and $-\frac{1}{5}$ ordered from least to greatest? (59.T.NS.7)

    a. 0.4 , 25% , -1 , $-\frac{1}{5}$

    b. -1 , $-\frac{1}{5}$, 25% , 0.4

    c. 0.4 , 25% , $-\frac{1}{5}$, -1

    d. $-\frac{1}{5}$, -1 , 25% , 0.4

21. Each class tried to collect $200 for a school fundraiser. Grade 5 collected $197.85, Grade 6 collected $198.50, Grade 7 collected $198.38, Grade 8 collected $198.47. Which grade was closest to the goal of $200. (59.T.NS.7)

    a. Grade 5
    b. Grade 6
    c. Grade 7
    d. Grade 8

22. Tim needs a nail that is more than 3.5 inches long. He has nails of the following lengths. Which nail can Tim use? (58.T.NS.7)

$$3\frac{1}{4},\ 2\frac{7}{8},\ 3\frac{3}{4},\ 3\frac{3}{8}$$

    a. $3\frac{1}{4}$

    b. $2\frac{7}{8}$.

    c. $3\frac{3}{8}$

    d. $3\frac{3}{4}$

23. Billy ate $\frac{3}{4}$ of his lunch, Susie ate 60% of her lunch, Dan ate $\frac{5}{7}$ of his lunch and Kate ate 0.5 of her lunch. Who ate the most of their lunch? (59.T.NS.7)

    a. Billy
    b. Susie
    c. Dan
    d. Kate

24. Three different runners ran the following distances in miles. Order their distances from least to greatest. (59.T.NS.7)

$$5.053\ ,\ 5.534\ ,\ 5.042\ ,\ 5.261$$

    a. 5.053 , 5.042 , 5.261 , 5.534
    b. 5.534 , 5.261 , 5.042 , 5.053
    c. 5.042 , 5.053 , 5.261 , 5.534
    d. 5.042 , 5.261 , 5.053 , 5.534

25. Four elevation measurements were taken at different points in a park. Which answer choice shows the elevations in order from least to greatest? (59.T.NS.7)

    a. $-1\frac{1}{4}, -1\frac{5}{8}, 1\frac{3}{8}, 1\frac{1}{2}$

    b. $-1\frac{5}{8}, -1\frac{1}{4}, 1\frac{3}{8}, 1\frac{1}{2}$

    c. $1\frac{3}{8}, 1\frac{1}{2}, -1\frac{5}{8}, -1\frac{1}{4}$

    d. $1\frac{1}{2}, 1\frac{3}{8}, -1\frac{5}{8}, -1\frac{1}{4}$