More Questions for Practice

1. Classify the positive rational numbers and negative rational numbers:

$$\frac{3}{5}, \frac{4}{-7}, \frac{-8}{9}, \frac{0}{-1}, \frac{9}{-1}, \frac{-3}{-4}, \frac{16}{15}, \frac{-1}{-7}, \frac{19}{-21}$$

2. Identify the rational numbers from the following that lie to the left of 0 on the number line:

$$\frac{7}{4}, \frac{-3}{-2}, \frac{0}{-4}, \frac{3}{4}, \frac{-1}{7}, \frac{3}{-5}$$

3. Write—

   (*a*) a rational number whose numerator is –7 and denominator is –3.

   (*b*) a rational number whose denominator is 3 and numerator is –5.

4. Identify the rational numbers which are in the standard form:

$$\frac{14}{-49}, \frac{-29}{31}, \frac{-52}{65}, \frac{99}{101}$$

5. Reduce the following numbers to the standard form:

$$\frac{-16}{56}, \frac{-225}{125}, \frac{85}{-100}, \frac{18}{-81}, \frac{75}{90}$$

6. Find:

   (*a*) $\dfrac{3}{4} + \dfrac{-9}{8}$ (*b*) $\dfrac{7}{10} + \dfrac{2}{-5}$ (*c*) $\dfrac{11}{15} + \dfrac{-7}{5}$

7. Find:

   (*a*) $\dfrac{7}{10} + \dfrac{1}{2} - \dfrac{3}{5}$ (*b*) $1\dfrac{1}{3} - \dfrac{2}{3} + 4\dfrac{7}{15}$

8. Find:

   (*a*) $3 \times \dfrac{3}{7} \times (-7)$ (*b*) $\dfrac{1}{4} \times (-8) \times \dfrac{3}{7}$ (*c*) $5\dfrac{1}{2} \times 1\dfrac{2}{3} \times (-6)$ (*d*) $5\dfrac{1}{3} \times 7\dfrac{1}{2} \times 2$

9. Find:

   (*a*) $2\dfrac{1}{2} \div \left(\dfrac{-2}{5}\right)$ (*b*) $2 \div \dfrac{-3}{4}$ (*c*) $4\dfrac{1}{2} \div 2\dfrac{5}{8}$ (*d*) $2\dfrac{2}{3} \div \dfrac{-3}{8}$

10. The product of two rational numbers is $\dfrac{17}{65}$. If one of the two numbers is $1\dfrac{7}{13}$, find the other number.

11. From a 20 m long tape, how many pieces of length $2\dfrac{1}{2}$ m can be obtained?

12. Express each of the following rational numbers as a decimal:

    (a) $\dfrac{3}{4}$ (b) $\dfrac{2}{5}$ (c) $\dfrac{2}{3}$ (d) $\dfrac{7}{10}$

13. Write a rational number for each of the following:

    (a) 0.4   (b) 1.125   (c) 3.25   (d) $0.\overline{21}$

    (e) $0.0\overline{2}$

14. Divide the reciprocal of $\dfrac{-7}{25}$ by the sum $\left(\dfrac{9}{15} + \dfrac{2}{5} \right)$.

15. Write any four rational numbers, where each is equal to –2.

ANSWERS

1. Positive rational numbers: $\dfrac{3}{5}, \dfrac{-3}{-4}, \dfrac{16}{15}, \dfrac{-1}{-7}$

    Negative rational numbers: $\dfrac{4}{-7}, \dfrac{-8}{9}, \dfrac{9}{-1}, \dfrac{19}{-21}$

2. (a) $\dfrac{-1}{7}$ and $\dfrac{3}{-5}$ **3.** (a) $\dfrac{-7}{-3}$ (b) $\dfrac{-5}{3}$

4. $\dfrac{-29}{32}, \dfrac{99}{101}$ **5.** $\dfrac{-2}{7}, \dfrac{-9}{5}, \dfrac{-17}{20}, \dfrac{-2}{9}, \dfrac{5}{6}$

6. (a) $\dfrac{-3}{8}$ (b) $\dfrac{3}{10}$ (c) $\dfrac{-2}{3}$

7. (a) $\dfrac{3}{5}$ (b) $5\dfrac{2}{5}$

8. (a) –9   (b) $\dfrac{-6}{7}$ (c) –55   (d) 80

9. (a) $\dfrac{-25}{4}$ (b) $\dfrac{-8}{3}$ (c) $\dfrac{12}{7}$ (d) $\dfrac{-64}{9}$

10. $\dfrac{17}{100}$ **11.** 8 pieces

12. (a) 0.75   (b) 0.4   (c) $0.\overline{6}$ (d) 0.7

13. (a) $\dfrac{2}{5}$ (b) $\dfrac{9}{8}$ (c) $3\dfrac{1}{4}$ (d) $\dfrac{21}{99}$

    (e) $\dfrac{1}{45}$

14. $\dfrac{-25}{7}$ **15.** $\dfrac{-8}{4}, \dfrac{-4}{2}, \dfrac{-10}{5}, \dfrac{-12}{6}.$