

Solve Equations Involving Fractions – I

Give what is asked in each item and write your answers on the space provided.

1. Find the value of the expression.

a. $3 + \left(\frac{4}{5} - \frac{1}{5}\right)$

b. $\frac{5}{8} - \left(\frac{3}{8} - \frac{1}{8}\right)$

c. $\left(\frac{13}{4} - \frac{10}{8}\right) - \left(\frac{5}{3} - 1\right)$

d. $\left(\frac{3}{15} + \frac{7}{15}\right) + \frac{3}{5}$

Answers:

a.

b.

c.

d.

2. Write an equation involving variables for the following problems and solve the equation.

a. I have 25 colored papers. The papers are colored black, white, and red. If $\frac{2}{5}$ are black and $\frac{1}{5}$ are white, how many red papers do I have?

b. Mother has \$6,400 on her wallet. If she gave $\frac{3}{8}$ of her money to father and $\frac{2}{8}$ of it to my brother, how much money was left to mother?

Answers:

a.

b.

3. Solve the equations and find the value of x .

a. $x + \frac{4}{5} = 1\frac{1}{5}$

b. $x + \frac{5}{7} + \frac{9}{7} = \frac{16}{7}$

Answers:

a.

b.

4. Write an equation involving a variable for the following problems and then tell what the variable represents.

a. Ben went away for a distance of 5 km from his house. He ran the first $\frac{1}{10}$ of the distance and walked the rest. For how far did Ben walk?

b. Hades has 6 kg of rice. Of the total kg of rice, $\frac{5}{12}$ are brown rice while the rest are white rice. How many kilograms are white rice?

Answers:

a.

b.

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Answer Key

Give what is asked in each item and write your answers on the space provided.

1. Find the value of the expression.

a. $3 + \left(\frac{4}{5} - \frac{1}{5}\right)$

b. $\frac{5}{8} - \left(\frac{3}{8} - \frac{1}{8}\right)$

c. $\left(\frac{13}{4} - \frac{10}{8}\right) - \left(\frac{5}{3} - \frac{1}{3}\right)$

d. $\left(\frac{3}{15} + \frac{7}{15}\right) + \frac{3}{5}$

Answers:

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

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

c. $\frac{2}{3}$

d. $1\frac{4}{15}$

2. Write an equation involving variables for the following problems and solve the equation.

a. I have 25 colored papers. The papers are colored black, white, and red. If $\frac{2}{5}$ are black and $\frac{1}{5}$ are white, how many red papers do I have?

b. Mother has \$6,400 on her wallet. If she gave $\frac{3}{8}$ of her money to father and $\frac{2}{8}$ of it to my brother, how much money was left to mother?

Answers:

a. $x = \text{red papers}$

$$x + \left(\frac{2}{5} \times 25 + \frac{1}{5} \times 25\right) = 25$$

$x = 10$ red papers

b. $y = \text{money left to mother}$

$$y + \left(\frac{3}{8} \times \$6400 + \frac{2}{8} \times \$6400\right) = \$6400$$

$y = \$2400$ was left to mother

3. Solve the equations and find the value of x .

a. $x + \frac{4}{5} = 1\frac{1}{5}$

b. $x + \frac{5}{7} + \frac{9}{7} = \frac{16}{7}$

Answers:

a. $\frac{2}{5}$

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

4. Write an equation involving a variable for the following problems and then tell what the variable represents.

a. Ben went away for a distance of 5 km from his house. He ran the first $\frac{1}{10}$ of the distance and walked the rest. For how far did Ben walk?

b. Hades has 6 kg of rice. Of the total kg of rice, $\frac{5}{12}$ are brown rice while the rest are white rice. How many kilograms are white rice?

Answers:

a. $x = \text{distance walked}$

$$x + \left(\frac{1}{10} \times 5\right) = 5$$

$$x = 4\frac{1}{2}$$

b. $y = \text{kg of white rice}$

$$y + \left(\frac{5}{12} \times 6\right) = 6$$

$$y = 3\frac{1}{2}$$