

## Solve Equations Involving Fractions – III

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

1. Solve the equations.

a.  $2y + \frac{1}{4} = \frac{7}{8}$

b.  $3a + \frac{5}{9} = a + \frac{7}{9}$

c.  $\frac{7}{14} = 2x + \frac{1}{7}$

d.  $\left(\frac{7}{4} + 2z\right) + \frac{2}{4} = z + 2\frac{2}{8}$

Answers:

a.

b.

c.

d.

2. Joey has \$7 in his pocket. If he buys 2 pencils for \$  $1\frac{1}{2}$  each and a card for \$  $3\frac{3}{4}$ , how much money will be left to Joey? Show your solution.

Answers:

3. Risa needs to create tests for two subjects. If a test for the first subject requires  $\frac{5}{11}$  hours to finish and a test for the other subject requires  $\frac{13}{22}$  hours, in how many hours can Risa finish 5 tests for the first subject and 3 tests for the second one?

Answers:

4. A small sack of rice weighs  $\frac{4}{9}$ . If the total weight of 3 small sacks and 2 big sacks of rice is 40 kl, how heavy is a larger sack of rice?

Answers:

5. Jake's height is  $\frac{2}{3}$  in length of his brother's height. If their total height reaches 11 ft, how tall are the two boys?

Answers:

# Solve Equations Involving Fractions – III

## Answer Key

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

1. Solve the equations.

a.  $2y + \frac{1}{4} = \frac{7}{8}$

b.  $3a + \frac{5}{9} = a + \frac{7}{9}$

c.  $\frac{7}{14} = 2x + \frac{1}{7}$

d.  $\left(\frac{7}{4} + 2z\right) + \frac{2}{4} = z + 2\frac{2}{8}$

Answers:

a.  $\frac{5}{16}$

b.  $\frac{1}{9}$

c.  $\frac{5}{28}$

d. 0

2. Joey has \$7 in his pocket. If he buys 2 pencils for \$  $1\frac{1}{2}$  each and a card for \$  $3\frac{3}{4}$ , how much money will be left to Joey? Show your solution.

Answers:

$$7 - \left(1\frac{1}{2} \times 2\right) - 3\frac{3}{4} = \frac{1}{4} \text{ dollars}$$

3. Risa needs to create tests for two subjects. If a test for the first subject requires  $\frac{5}{11}$  hours to finish and a test for the other subject requires  $\frac{13}{22}$  hours, in how many hours can Risa finish 5 tests for the first subject and 3 tests for the second one? Show your solution.

Answers:

$$\left(\frac{5}{11} \times 5\right) + \left(\frac{13}{22} \times 3\right) = 4\frac{1}{22} \text{ hours}$$

4. A small sack of rice weighs  $\frac{4}{9}$ . If the total weight of 3 small sacks and 2 big sacks of rice is 40 kg, how heavy is a larger sack of rice? Show your solution.

Answers:

$$2x = 40 - \left(\frac{4}{9} \times 3\right) = 38\frac{2}{3}, \quad x = 19\frac{1}{3} \text{ kg}$$

5. Jake's height is  $\frac{2}{3}$  in length of his brother's height. If their total height reaches 11 ft, how tall are the two boys? Show your solution.

Answers:

$$\frac{2}{3}x + x = 11, \quad x = 6\frac{3}{5} \text{ ft is Jake's brother's height, } \frac{2}{3}x = 4\frac{2}{5} \text{ ft is Jake's height}$$