

## Solve Equations Involving Fractions – II

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

1. Find the value of the expression if  $x = \frac{3}{4}$ .

a.  $\frac{2}{4} + \left(x - \frac{1}{4}\right)$

b.  $3x - \left(\frac{3}{8} - \frac{1}{4}\right)$

c.  $3 - \frac{5}{4} - x$

d.  $(3 + 2x) + \frac{4}{12}$

Answers:

a.

b.

c.

d.

2. Solve the equations to find the value of  $y$ .

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

b.  $2y + \frac{5}{9} = y + \frac{7}{9}$

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

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

Answers:

a.

b.

c.

d.

3. Solve the problems using an equation involving variables. Show your solution.

a. Sylvia and Ana decided to collect 40 photographs. Sylvia collected  $\frac{3}{8}$  of all the photographs. How many photographs did Ana collect?

b. Helen studied for 4 hours for her two subjects. She studied  $1\frac{2}{8}$  hours for the first subject. How long did she study for the second subject?

Answers:

a.

b.

4. Justin works at his office for  $4\frac{1}{3}$  hours every day for six days and another length of time for the seventh day. If he worked 40 hours in total, which equation can be used to find the number of hours he worked on the seventh day? \_\_\_\_\_

a.  $6\left(4\frac{1}{3} + y\right) = 40$

c.  $4\frac{1}{3} + y = 40$

b.  $4\frac{1}{3} + 6y = 40$

d.  $6\left(4\frac{1}{3}\right) + y = 40$

# Solve Equations Involving Fractions – II

## Answer Key

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

1. Find the value of the expression if  $x = \frac{3}{4}$ .

- a.  $\frac{2}{4} + \left(x - \frac{1}{4}\right)$
- b.  $3x - \left(\frac{3}{8} - \frac{1}{4}\right)$
- c.  $3 - \frac{5}{4} - x$
- d.  $(3 + 2x) + \frac{4}{12}$

Answers:

- a. 1
- b.  $2\frac{1}{8}$
- c. 1
- d.  $4\frac{5}{6}$

2. Solve the equations to find the value of  $y$ .

- a.  $y + \frac{1}{4} = \frac{7}{8}$
- b.  $2y + \frac{5}{9} = y + \frac{7}{9}$
- c.  $\frac{7}{14} = y + \frac{1}{7}$
- d.  $\left(\frac{7}{4} + y\right) + \frac{2}{4} = 2\frac{2}{8}$

Answers:

- a.  $\frac{5}{8}$
- b.  $\frac{2}{9}$
- c.  $\frac{5}{14}$
- d. 0

3. Solve the problems using an equation involving variables. Show your solution.

a. Sylvia and Ana decided to collect 40 photographs. Sylvia collected  $\frac{3}{8}$  of all the photographs. How many photographs did Ana collect?

b. Helen studied for 4 hours for her two subjects. She studied  $1\frac{2}{8}$  hours for the first subject. How long did she study for the second subject?

Answers:

- a.  $x = \text{number of photographs Ana collected}$   
 $x + \left(\frac{3}{8} \times 40\right) = 40$   
 $x = 25$
- b.  $y = \text{number of hours Helen studied for the second subject}$   
 $y + 1\frac{2}{8} = 4$   
 $y = 2\frac{3}{4}$

4. Justin works at his office for  $4\frac{1}{3}$  hours every day for six days and another length of time for the seventh day. If he worked 40 hours in total, which equation can be used to find the number of hours he worked on the seventh day? d.

- a.  $6\left(4\frac{1}{3} + y\right) = 40$
- b.  $4\frac{1}{3} + 6y = 40$
- c.  $4\frac{1}{3} + y = 40$
- d.  $6\left(4\frac{1}{3}\right) + y = 40$