

Solving Equations with Fractions

1. Copy and complete.

a. $\frac{y}{2} = 8$

$\frac{\times y}{2} = \underline{\quad} \times 8$

$y = \underline{\quad}$

b. $\frac{2y}{3} = 6$

$\frac{\times 2y}{3} = \underline{\quad} \times 6$

$2y = \underline{\quad}$

$y = \underline{\quad}$

c. $\frac{-3y}{2} = -9$

$\frac{\times -3y}{2} = \underline{\quad} \times -9$

$-3y = \underline{\quad}$

$y = \underline{\quad}$

2. Solve. Show full setting out.

a. $\frac{a}{5} = -6$

b. $\frac{t}{-2} = -5$

c. $\frac{-3t}{4} = 9$

3. Solve. Show full setting out.

a. $\frac{a}{2} = \frac{1}{3}$

b. $\frac{c}{5} = \frac{2}{3}$

c. $\frac{p}{3} = \frac{-3}{4}$

4. Solve. Show full setting out.

a. $\frac{a}{6} = \frac{4}{3}$

b. $\frac{c}{3} = \frac{2}{5}$

c. $\frac{p}{3} = \frac{-3}{4}$

5. Solve. Show full setting out.

a. $\frac{y-1}{3} = 2$

b. $\frac{x+3}{2} = 5$

c. $\frac{3a+1}{2} = 8$

6. Solve. Show full setting out.

a. $\frac{2a-3}{3} = -3$

b. $\frac{5a+1}{2} = -7$

c. $\frac{-6f+3}{2} = 3$

7. Solve. Show full setting out.

a. $\frac{12-y}{3} = 1$

b. $\frac{12-a}{2} = 6$

c. $\frac{3-y}{4} = 2$

8. Solve. Show full setting out.

a. $\frac{1-y}{4} = -5$

b. $\frac{3-y}{2} = -1$

c. $\frac{-2-a}{3} = -4$

9. Solve. Show full setting out.

a. $\frac{8-2w}{2} = 3$

b. $\frac{-3v+3}{2} = 6$

c. $\frac{1-2p}{3} = -1$

10. Solve. Show full setting out.

a. $\frac{c}{3} + 10 = 2c$

b. $\frac{y}{2} + 3 = y$

c. $\frac{2r}{3} + 1 = r$

11. Solve. Show full setting out.

a. $\frac{r+1}{3} = r+1$

b. $\frac{z-2}{3} = r-8$

c. $\frac{3z-1}{2} = 2(z+4)$

12. Solve. Show full setting out.

a. $\frac{4-3y}{2} = 2(3y-4)$

b. $\frac{2(a+3)}{2} = \frac{a}{5}$

c. $\frac{5(2a-1)}{3} = \frac{3(a+6)}{2} + 1$

Answers

1. a. 16 b. 9 c. 6 2. a. -30 b. 10 c. -12 3. a. $\frac{2}{3}$ b. $\frac{10}{3}$ c. $\frac{-9}{4}$ 4. a. 8 b. $\frac{6}{5}$ c. $\frac{-9}{4}$ 5. a. 7 b. 7 c. 5
 6. a. -3 b. -3 c. $-\frac{1}{2}$ 7. a. 9 b. 0 c. -5 8. a. -19 b. 5 c. 10 9. a. 1 b. -1 c. 2 10. a. 6 b. 6 c. 3
 11. a. -1 b. 11 c. -17 12. a. $\frac{4}{3}$ b. $-\frac{15}{4}$ c. Mars bar question!