

## Solving Equations

Emphasis on 2-Step Linear Equations – Multiplication & Division

Solve each of the following.

1.  $\frac{a}{10} = 5$

$$\cancel{10} \cdot \left[ \frac{a}{\cancel{10}} = 5 \right] \cdot 10$$

$$a = 50$$

2.  $\frac{4x}{4} = \frac{48}{4}$

$$x = 12$$

3.  $\frac{b}{6} = -21$

$$\cancel{6} \cdot \left[ \frac{b}{\cancel{6}} = -21 \right] \cdot 6$$

$$b = -126$$

4.  $\frac{6w}{6} = \frac{-54}{6}$

$$w = -9$$

5.  $\frac{d}{8} = 12$

$$\cancel{8} \cdot \left[ \frac{d}{\cancel{8}} = 12 \right] \cdot 8$$

$$d = 96$$

6.  $\frac{24}{-8} = \frac{-8n}{-8}$

$$-3 = n \quad \text{OR} \quad n = -3$$

7.  $\frac{f}{15} = -15$

$$\cancel{15} \cdot \left[ \frac{f}{\cancel{15}} = -15 \right] \cdot 15$$

$$f = -225$$

8.  $\frac{20}{5} = \frac{5g}{5}$

$$4 = g \quad \text{OR} \quad g = 4$$

9.  $\frac{g}{21} = 6$

$$\cancel{21} \cdot \left[ \frac{g}{\cancel{21}} = 6 \right] \cdot 21$$

$$g = 126$$

10.  $\frac{-4q}{-4} = \frac{52}{-4}$

$$q = -13$$

$$11. \frac{48}{8} = \frac{8c}{8}$$

$$\boxed{6 = c} \quad \text{OR} \quad \boxed{c = 6}$$

$$12. \frac{h}{9} = 7$$

$$\cancel{9} \left[ \frac{h}{\cancel{9}} = 7 \right] \cdot 9$$
$$\boxed{h = 63}$$

$$13. \frac{-109}{9} = \frac{9j}{9}$$

$$\boxed{\frac{-109}{9} = j} \quad \text{OR} \quad \boxed{j = \frac{-109}{9}}$$

$$14. \frac{m}{11} = -14$$

$$\cancel{11} \left[ \frac{m}{\cancel{11}} = -14 \right] \cdot 11$$
$$\boxed{m = -154}$$

$$15. \frac{15}{-1} = \frac{-h}{-1}$$

$$\boxed{-15 = h} \quad \text{OR} \quad \boxed{h = -15}$$

$$16. \frac{n}{25} = 8$$

$$\cancel{25} \left[ \frac{n}{\cancel{25}} = 8 \right] \cdot 25$$
$$\boxed{n = 200}$$

$$17. \frac{187}{-17} = \frac{-17r}{-17}$$

$$\boxed{-11 = r} \quad \text{OR} \quad \boxed{r = -11}$$

$$18. \frac{t}{3} = -9$$

$$\cancel{3} \left[ \frac{t}{\cancel{3}} = -9 \right] \cdot 3$$
$$\boxed{t = -27}$$

$$19. \frac{-3.3a}{-3.3} = \frac{19.8}{-3.3}$$

$$\boxed{a = -6}$$

$$20. \frac{k}{4} = 100$$

$$\cancel{4} \left[ \frac{k}{\cancel{4}} = 100 \right] \cdot 4$$
$$\boxed{k = 400}$$