

# Chapter 3 Sections 3.1-3.2 Practice Test

## Short Answer

Solve the equation.

1.  $-5 = x + 3$

$$\begin{array}{r} -3 \quad -3 \\ -5 = x + 3 \\ \hline -8 = x \end{array}$$

2.  $-4 = \frac{x}{-5}$

multiply by -5 to both sides

$$20 = x \quad (x=20)$$

3.  $x + 19 = -1$

$$\begin{array}{r} -19 \quad -19 \\ x + 19 = -1 \\ \hline x = -20 \end{array}$$

4.  $\frac{7}{8}x = 7$

multiply by  $\frac{8}{7}$  to both sides

$$\begin{array}{l} \frac{8}{7} \cdot \frac{7}{8}x = 7 \cdot \frac{8}{7} \\ x = \frac{56}{7} \\ (x=8) \end{array}$$

5.  $-3 = \frac{x}{7} + 4$

$$\begin{array}{r} -4 \quad -4 \\ -3 = \frac{x}{7} + 4 \\ \hline -7 = \frac{x}{7} \end{array}$$

multiply by 7, both sides

$$-49 = x$$

6.  $\frac{3}{5}x - 6 = 3$

$$\begin{array}{r} +6 \quad +6 \\ \frac{3}{5}x - 6 = 3 \\ \hline \frac{3}{5}x = 9 \end{array}$$

multiply by  $\frac{5}{3}$  to both sides

$$\begin{array}{l} \frac{5}{3} \cdot \frac{3}{5}x = 9 \cdot \frac{5}{3} \\ x = \frac{45}{3} \\ (x=15) \end{array}$$

7.  $10 = \frac{3+z}{-5}$

multiply by -5, both sides

$$-50 = 3+z$$

$$\begin{array}{r} -50 = 3+z \\ -3 \quad -3 \\ \hline -53 = z \end{array}$$

8.  $3 = \frac{12+z}{-6}$

multiply by -6, both sides

$$-18 = 12+z$$

$$\begin{array}{r} -12 \quad -12 \\ -18 = 12+z \\ \hline -30 = z \end{array}$$

$$-30 = z$$

Name: Distribute

9.  $2(1.5y + 4) = -1$   

$$\begin{array}{r} 3y + 8 = -1 \\ -8 \quad -8 \end{array}$$

$$\frac{3y}{3} = \frac{-9}{3}$$

$$y = -3$$

10.  $\frac{3x}{5} - 0.5 = 1.9$   

$$\frac{3x}{5} = 2.4$$
 multiply by  $\frac{5}{3}$  to both sides  

$$\frac{5}{3} \cdot \frac{3x}{5} = 2.4 \cdot \frac{5}{3}$$

$$x = 4$$

11.  $\frac{x}{6} - 7 = \frac{2 \cdot 2}{3 \cdot 2}$   

$$\frac{x}{6} - \frac{7}{1} = \frac{4}{6}$$

$$\frac{x}{6} - \frac{42}{6} = \frac{4}{6}$$

$$x - 42 = 4$$

$$\begin{array}{r} x - 42 = 4 \\ +42 \quad +42 \\ \hline x = 46 \end{array}$$

12.  $x - \frac{3}{5} = \frac{4}{5}$   

$$\frac{x}{1} - \frac{3}{5} = \frac{4}{5}$$

$$\frac{5x}{5} - \frac{3}{5} = \frac{4}{5}$$

$$5x - 3 = 4$$

$$\begin{array}{r} 5x - 3 = 4 \\ +3 \quad +3 \\ \hline 5x = 7 \\ x = \frac{7}{5} \end{array}$$

13.  $\frac{1}{2} + \frac{7x}{10} = \frac{13}{20}$   

$$\frac{10}{20} + \frac{14x}{20} = \frac{13}{20}$$

$$10 + 14x = 13$$

$$\begin{array}{r} 10 + 14x = 13 \\ -10 \quad -10 \\ \hline 14x = 3 \\ x = \frac{3}{14} \end{array}$$

14. Solve the equation.  $46 + 3 + 6q = 85$   

$$\begin{array}{r} 49 + 6q = 85 \\ -49 \quad -49 \\ \hline 6q = 36 \\ q = 6 \end{array}$$

15. Solve the equation.  $2.6 = -12.2 + (-5.3y) + 2.1y$   

$$2.6 = -12.2 - 3.2y$$

$$\begin{array}{r} 2.6 = -12.2 - 3.2y \\ +12.2 \quad +12.2 \\ \hline 14.8 = -3.2y \\ -3.2 \quad -3.2 \\ \hline -4.625 = y \end{array}$$

16. Solve the equation.  $5.6x + 2.7 = 13.9$   

$$\begin{array}{r} 5.6x + 2.7 = 13.9 \\ -2.7 \quad -2.7 \\ \hline 5.6x = 11.2 \\ \frac{5.6x}{5.6} = \frac{11.2}{5.6} \\ x = 2 \end{array}$$

17. Solve the equation.
- $6(y + 7) = 72$

$$\begin{array}{r} 6y + 42 = 72 \\ -42 \quad -42 \\ \hline 6y = 30 \\ \frac{6y}{6} = \frac{30}{6} \\ y = 5 \end{array}$$

$$\begin{array}{r} 6y = 30 \\ \frac{6y}{6} = \frac{30}{6} \\ y = 5 \end{array}$$

18. Solve the equation.
- $16 = -d + 12$

$$\begin{array}{r} -12 \quad -12 \\ \frac{4 = -d}{-1 \quad -1} \end{array}$$

$$d = -4$$

19. Solve the equation.
- $y + 11 + 8y = 29$

$$\begin{array}{r} 9y + 11 = 29 \\ -11 \quad -11 \\ \hline 9y = 18 \end{array}$$

$$y = 2$$

20. Solve the equation.
- $52 + 2 + 6k = 126$

$$\begin{array}{r} 54 + 6k = 126 \\ -54 \quad -54 \\ \hline 6k = 72 \end{array}$$

$$k = 12$$

21. Solve the equation.
- $-6y + 1 + -6y = -11$

$$\begin{array}{r} -12y + 1 = -11 \\ -1 \quad -1 \\ \hline -12y = -12 \end{array}$$

$$y = 1$$

22. Solve the equation.
- $3.2x + 3.8 = 16.6$

$$\begin{array}{r} -3.8 \quad -3.8 \\ \frac{3.2x = 12.8}{3.2 \quad 3.2} \end{array}$$

$$x = 4$$

23. Solve the equation.
- $6(y + 4) = 48$

$$\begin{array}{r} 6y + 24 = 48 \\ -24 \quad -24 \\ \hline 6y = 24 \end{array}$$

$$y = 4$$

24. Solve the equation.
- $5(y + 4) = 65$

$$\begin{array}{r} 5y + 20 = 65 \\ -20 \quad -20 \\ \hline 5y = 45 \end{array}$$

$$y = 9$$

