

LESSON
3.3

Practice A

For use with pages 148-153

Solve the equation.

4. $13y + 7y - 6 = 11$

$$y = \frac{17}{20}$$

$$\begin{array}{r} 20y + \cancel{-6} = 11 \\ \quad \quad \quad +6 \quad +6 \\ \hline (\frac{1}{20}) 20y = 17 (\frac{1}{20}) \end{array}$$

5. $3(a - 4) = 44$

$$\begin{array}{r} 3a - 12 = 44 \\ \quad \quad \quad +12 \quad +12 \\ \hline (\frac{1}{3}) 3a = 56 (\frac{1}{3}) \\ \hline a = \frac{56}{3} \end{array}$$

6. $\frac{1}{3}(m - 4) = 5 (\frac{3}{1})$

$$\begin{array}{r} m - 4 = 15 \\ \quad \quad \quad +4 \quad +4 \\ \hline \end{array}$$

$$m = 19$$

7. $7 + 6(w - 3) = 31$

$$\begin{array}{r} 7 + 6w - 18 = 31 \\ \quad \quad \quad +18 \quad +18 \\ \hline 6w - 11 = 31 \\ \quad \quad \quad +11 \quad +11 \\ \hline (\frac{1}{6}) 6w = 42 (\frac{1}{6}) \\ \hline w = 7 \end{array}$$

8. $8d - 4 - 6d = 22$

$$\begin{array}{r} 2d - 4 = 22 \\ \quad \quad \quad +4 \quad +4 \\ \hline (\frac{1}{2}) 2d = 26 (\frac{1}{2}) \\ \hline d = 13 \end{array}$$

9. $7 - 3(p + 6) = 27$

$$\begin{array}{r} 7 - 3p - 18 = 27 \\ \quad \quad \quad +18 \quad +18 \\ \hline -3p - 11 = 27 \\ \quad \quad \quad +11 \quad +11 \\ \hline (\frac{-1}{3}) -3p = 38 (\frac{-1}{3}) \\ \hline p = -\frac{38}{3} \end{array}$$

10. $3a + 2a + 7 = 12$

$$\begin{array}{r} 5a + 7 = 12 \\ \quad \quad \quad +7 \quad +7 \\ \hline (\frac{1}{5}) 5a = 19 (\frac{1}{5}) \\ \hline a = \frac{19}{5} \end{array}$$

11. $9n - 4 + n = 16$

$$\begin{array}{r} 10n - 4 = 16 \\ \quad \quad \quad +4 \quad +4 \\ \hline (\frac{1}{10}) 10n = 20 (\frac{1}{10}) \\ \hline n = 2 \end{array}$$

12. $7c + 3 - 5c = 15$

$$\begin{array}{r} 2c + 3 = 15 \\ \quad \quad \quad +3 \quad +3 \\ \hline (\frac{1}{2}) 2c = 12 (\frac{1}{2}) \\ \hline c = 6 \end{array}$$

16. $2p + 3(p + 3) = 21$

$$\begin{array}{r} 2p + 3p + 9 = 21 \\ \quad \quad \quad +9 \quad +9 \\ \hline (\frac{1}{5}) 5p = 12 (\frac{1}{5}) \\ \hline p = \frac{12}{5} \end{array}$$

17. $6w + 5(w - 2) = 23$

$$\begin{array}{r} 6w + 5w - 10 = 23 \\ \quad \quad \quad +10 \quad +10 \\ \hline (\frac{1}{11}) 11w = 33 (\frac{1}{11}) \\ \hline w = 3 \end{array}$$

18. $7 - 3(x + 2) = 4$

$$\begin{array}{r} 7 - 3x - 6 = 4 \\ \quad \quad \quad +6 \quad +6 \\ \hline -3x + 1 = 4 \\ \quad \quad \quad +1 \quad +1 \\ \hline (\frac{-1}{3}) -3x = 3 (\frac{-1}{3}) \\ \hline x = -1 \end{array}$$

19. $\frac{1}{4}(d - 5) = 1 (\frac{4}{1})$

$$\begin{array}{r} d - 5 = 4 \\ \quad \quad \quad +5 \quad +5 \\ \hline d = 9 \end{array}$$

20. $\frac{1}{3}(m + 6) = 4 (\frac{3}{1})$

$$\begin{array}{r} m + 6 = 12 \\ \quad \quad \quad +6 \quad +6 \\ \hline m = 6 \end{array}$$

21. $\frac{1}{8}(w - 7) = 5 (\frac{8}{1})$

$$\begin{array}{r} w - 7 = 40 \\ \quad \quad \quad +7 \quad +7 \\ \hline w = 47 \end{array}$$