

1.3 Practice B Solutions

$$1. x = 20$$

$$3. \begin{array}{r} 5x - 2 = 13 \\ +2 \quad +2 \end{array}$$

$$5x = 15$$

$$\boxed{x = 3}$$

$$5. \begin{array}{r} 9 - 3x = -3 \\ -9 \quad -9 \end{array}$$

$$-3x = -12$$

$$\boxed{x = 4}$$

$$7. \begin{array}{r} 3x - 5 = 9 \\ +5 \quad +5 \end{array}$$

$$3x = 14$$

$$\boxed{x = 14/3}$$

$$9. \begin{array}{r} 3x - 1 = x + 4 \\ -x \quad -x \end{array}$$

$$\begin{array}{r} 2x - 1 = 4 \\ +1 \quad +1 \end{array}$$

$$2x = 5$$

$$\boxed{x = 5/2}$$

$$11. \begin{array}{r} \frac{1}{2}x + 6 = -4 \\ -6 \quad -6 \end{array}$$

$$2 \cdot \frac{1}{2}x = -10 \quad \cdot 2$$

$$\boxed{x = -20}$$

$$13. -(x+1) = 2(3x-1)$$

$$\begin{array}{r} x - 1 = 6x - 2 \\ +x \end{array}$$

$$\begin{array}{r} -1 = 7x - 2 \\ +2 \quad +2 \end{array}$$

$$1 = 7x$$

$$\boxed{x = 1/7}$$

$$15.) 2(7-x) = 6(1+2x) \quad \cancel{2}$$

$$\begin{array}{r} 14 - 2x = 6 + 12x \\ +2x \quad +2x \end{array}$$

$$14 = 6 + 14x$$

$$\begin{array}{r} -6 \quad -6 \\ \hline 8 = 14x \\ \hline \frac{8}{14} = \frac{14x}{14} \end{array}$$

$$\boxed{\frac{4}{7} = x}$$

$$17. \frac{1}{2}(4x+10) = 5-3x$$

$$\begin{array}{r} 2x + 5 = 5 - 3x \\ -2x \quad -2x \end{array}$$

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

$$0 = -5x$$

$$\boxed{x = 0}$$

$$19. \frac{3}{2}(x-5) = 7$$

$$\frac{3}{2}x - \frac{15}{2} = 7$$

$$\begin{array}{r} \frac{3}{2}x + \frac{15}{2} = \frac{14}{2} \\ +15/2 \quad +15/2 \end{array}$$

$$2 \cdot \frac{3}{2}x = \frac{29}{2} \cdot \frac{2}{3}$$

$$\boxed{x = \frac{29}{3}}$$

$$21. 5(2x-2) = 4-2x$$

$$\begin{array}{r} 10x - 10 = 4 - 2x \\ +10 \quad +10 \end{array}$$

$$10x = 14 - 2x$$

$$12x = 14$$

$$x = 14/12 = \boxed{7/6}$$

$$23. \quad 2(15-2x) + 2(x+7) = 38$$

$$30 - 4x + 2x + 14 = 38$$

$$\begin{array}{r} 44 - 2x = 38 \\ -44 \quad -44 \end{array}$$

$$-2x = -6$$

$$\boxed{x = 3}$$

Dimensions: $15 - 2(3) \quad \times \quad (3) + 7$

9	×	10
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25. 3 tickets

$$27. \quad 134 = 32x + 46$$

$-46 \qquad -46$

$$\frac{88}{32} = \frac{32x}{32}$$

$$\boxed{2.75 \text{ hours} = x}$$

$$29. \quad 2 + .5x = 3.5$$

$-2 \qquad +2$

$$\frac{.5x}{.5} = \frac{1.5}{.5}$$

$$\boxed{x = 3} \text{ children}$$