

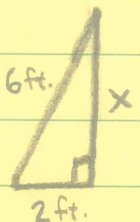
Ch 10

$$\begin{array}{ll} 2) \angle 1 = 94^\circ & \angle 3 = 94^\circ \\ \angle 2 = 59^\circ & \angle 4 = 59^\circ \end{array}$$

$$\begin{array}{ll} 4) \quad x + 40 + 4x - 10 = 90 & 12 + 40 = \boxed{62^\circ} \\ \quad 5x + 30 = 90 & 4(12) - 10 \\ \quad 5x = 60 & = 48 - 10 = \boxed{38^\circ} \\ \quad x = 12 & \end{array}$$

$$\begin{array}{ll} 6) \quad 4x + x + 45 + x = 180 & 4(22.5) = \boxed{90^\circ} \\ \quad 6x + 45 = 180 & 22.5 + 45 = \boxed{67.5^\circ} \\ \quad 6x = 135 & \\ \quad x = \boxed{22.5^\circ} & \end{array}$$

8)


$$\begin{array}{l} x^2 + 2^2 = 6^2 \\ x^2 + 4 = 36 \\ \sqrt{x^2} = \sqrt{32} \\ \boxed{x = 5.66 \text{ ft}} \end{array}$$

$$\begin{array}{l} 10) \quad (7-2) 180 \\ \quad = (5) 180 = \boxed{900^\circ} \end{array}$$

$$\begin{array}{ll} 12) \quad \text{length} = 3w & 2(3w) + 2w = 600 \\ \quad \text{width} = w & 6w + 2w = 600 \\ \quad \text{Perimeter} = 600 & 8w = 600 \\ & w = 75 \end{array}$$

$$3(75) = 225$$

$$\boxed{225 \text{ yds by } 75 \text{ yds}}$$

$$14) C = 15\pi$$

$$= 47.12389 \text{ ft}$$

$$47.12389 \text{ ft} \times \frac{12 \text{ in}}{1 \text{ ft}} \times \frac{\$0.25}{1 \text{ inch}}$$

$$= \boxed{\$141.37}$$

Trigonometry Review

$$2) \tan 42 = \frac{4}{x}$$

$$x \tan 42 = 4$$

$$x = \frac{4}{\tan 42}$$

$$x = \boxed{4.44 \text{ ft}}$$

$$4) 180 - 50 - 55 = 75^\circ$$

$$\frac{x}{\sin 50} = \frac{12}{\sin 75}$$

$$x = \frac{12 \sin 50}{\sin 75}$$

$$x = \boxed{9.52 \text{ ft}}$$

$$6) 10^2 = 5^2 + 6^2 - 2(5)(6) \cos x$$

$$100 = 25 + 36 - 60 \cos x$$

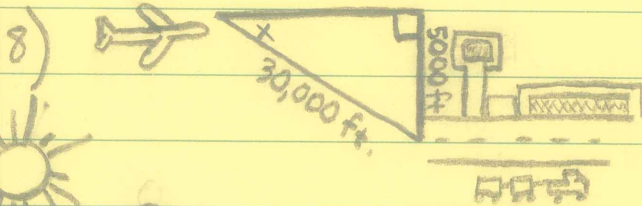
$$100 = 61 - 60 \cos x$$

$$39 = -60 \cos x$$

$$\frac{39}{-60} = \cos x$$

$$x = \cos^{-1}\left(\frac{39}{-60}\right)$$

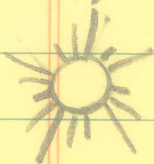
$$x = \boxed{130.54^\circ}$$



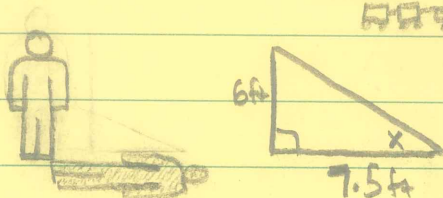
$$\sin x = \frac{5000}{30,000}$$

$$x = \sin^{-1}\left(\frac{5000}{30,000}\right)$$

$$x = \boxed{9.59^\circ}$$



10)



$$7 \text{ ft } 6 \text{ in} = 7.5 \text{ ft}$$

$$\sin x = \frac{6}{7.5}$$

$$x = \sin^{-1}\left(\frac{6}{7.5}\right)$$

$$x = \boxed{53.13^\circ}$$