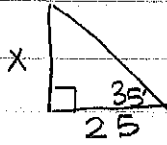


pg. 227 #27-30

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pg. 228 #39-43, 55, 56

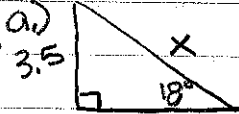
27.



$$25 \cdot \tan 35 = \frac{x}{25} \cdot 25$$

$$\boxed{17.5 \text{ ft}} = x$$

28

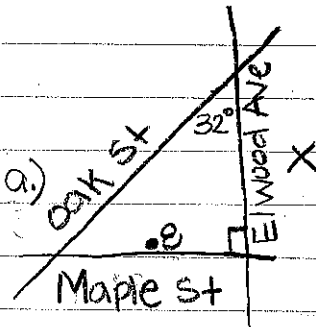


$$b.) x \cdot \sin 18 = \frac{3.5}{x} \cdot x$$

$$\frac{x \sin 18 = 3.5}{\sin 18 \quad \sin 18}$$

$$\boxed{x = 11.3 \text{ ft}}$$

29.

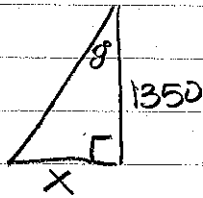


$$b.) x \cdot \tan 32^\circ = \frac{.8}{x}$$

$$\frac{x \tan 32^\circ = .8}{\tan 32^\circ \quad \tan 32^\circ}$$

$$\boxed{x = 1.3 \text{ mi}}$$

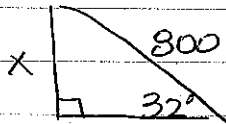
30.



$$1350 \tan 8^\circ = \frac{x}{1350} \cdot 1350$$

$$\boxed{189.7 \text{ ft}} = x$$

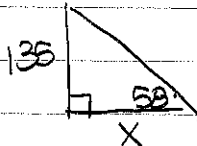
39.



$$800 \cdot \sin 32 = \frac{x}{800} \cdot 800$$

$$\boxed{423.9 \text{ ft}} = x$$

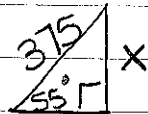
40.



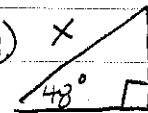
$$x \cdot \tan 58 = \frac{135}{x} \cdot x$$

$$\frac{x \tan 58 = 135}{\tan 58 \quad \tan 58}$$

$$\boxed{x = 84.4 \text{ m}}$$

41. a)  b.) $375 \cdot \sin 55 = \frac{x}{375} \cdot 375$

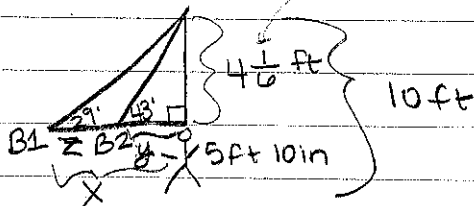
$$\boxed{307.2 \text{ ft} = x}$$

42. a)  b.) $x \cdot \sin 48^\circ = \frac{22.5}{x} \cdot x$

$$\frac{x \sin 48^\circ}{\sin 48^\circ} = \frac{22.5}{\sin 48^\circ}$$

$$\boxed{x = 302.8 \text{ m}}$$

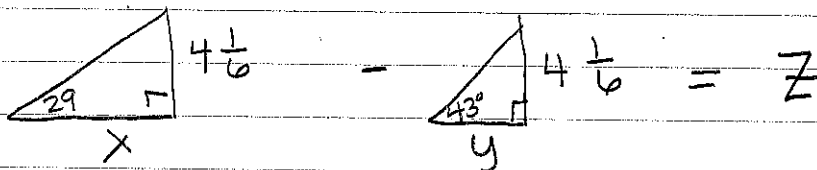
43.



$$5 \text{ ft } 10 \text{ in} =$$

$$5 \frac{10}{12} = 5 \frac{5}{6}$$

$$10 - 5 \frac{5}{6} = 4 \frac{1}{6}$$



$$x \cdot \tan 29 = \frac{4 \frac{1}{6}}{x} \cdot x$$

$$y \cdot \tan 43 = \frac{4 \frac{1}{6}}{y} \cdot y$$

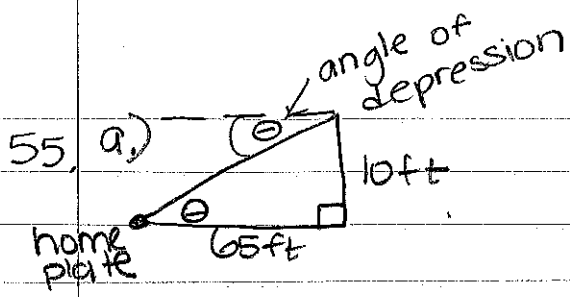
$$\frac{x \tan 29}{\tan 29} = \frac{4 \frac{1}{6}}{\tan 29}$$

$$\frac{y \tan 43}{\tan 43} = \frac{4 \frac{1}{6}}{\tan 43}$$

$$x = 7.5 \text{ ft}$$

$$y = 4.5 \text{ ft}$$

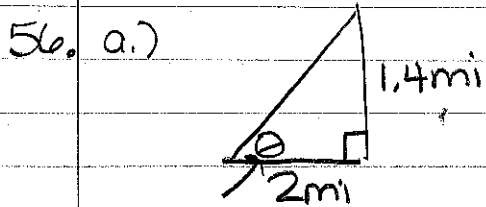
$$7.5 - 4.5 = \boxed{3 \text{ ft}}$$



b.) $\tan \theta = \frac{10}{65}$

$$\theta = \tan^{-1} \left(\frac{10}{65} \right)$$

$$\theta = 8.7^\circ$$



b.) $\tan \theta = \frac{1.4}{2}$

$$\theta = \tan^{-1} \left(\frac{1.4}{2} \right)$$

$$\theta = 35^\circ$$