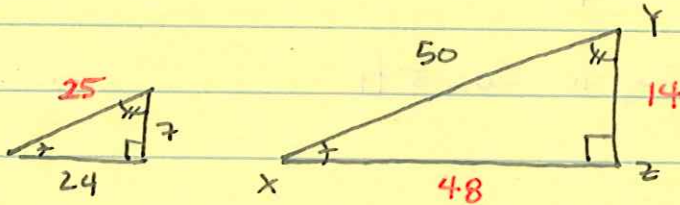
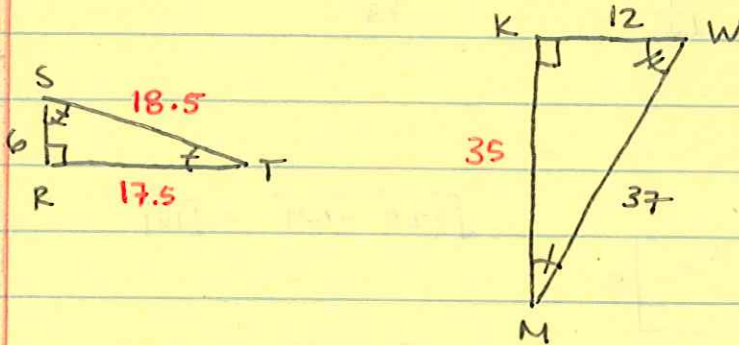


Homework 2.9 Solutions #17-19, 31-33, 36

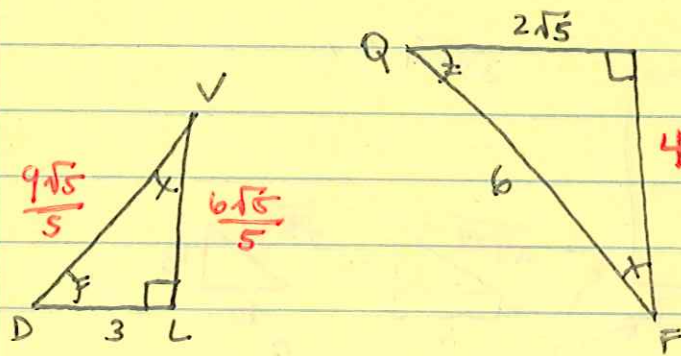
17.)  $\sqrt{24^2 + 7^2} = \sqrt{576 + 49} = \sqrt{625} = \boxed{25}$



18.)  $\sqrt{37^2 - 12^2} = \sqrt{1369 - 144} = \boxed{35}$



19.)  $\sqrt{6^2 - (2\sqrt{5})^2} = \sqrt{36 - 20} = \sqrt{16} = 4$

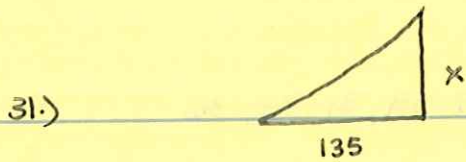


$$\frac{2\sqrt{5}}{4} = \frac{3}{x}$$

$$x = \frac{12}{2\sqrt{5}} = \frac{6}{\sqrt{5}} = \frac{6\sqrt{5}}{5}$$

$$\frac{2\sqrt{5}}{6} = \frac{3}{y}$$

$$y = \frac{18}{2\sqrt{5}} = \frac{9}{\sqrt{5}} = \frac{9\sqrt{5}}{5}$$

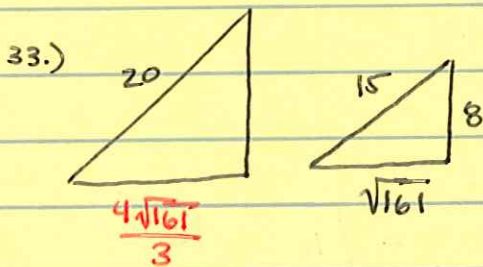
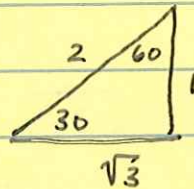
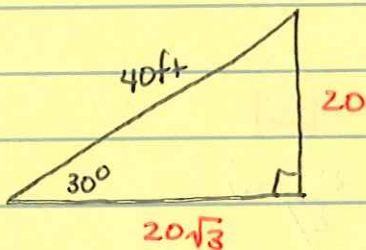


$$\frac{x}{135} = \frac{6}{4}$$

$$x = 202.5 \text{ ft}$$

The building is 202.5 ft.

32.)

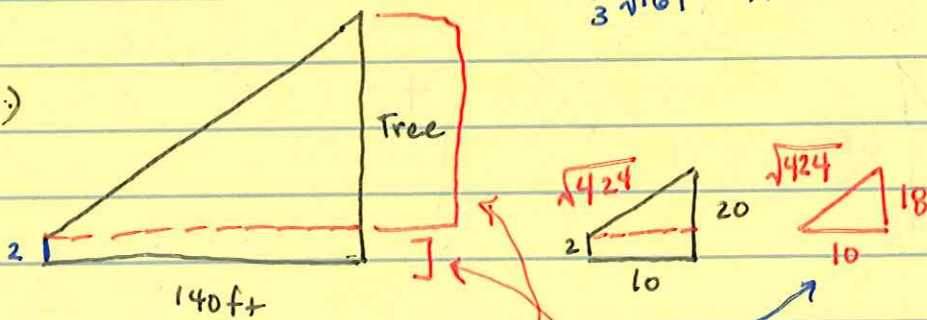


$$\sqrt{225 - 64} = \sqrt{161}$$

$$\frac{20}{x} = \frac{15}{\sqrt{161}}$$

$$\frac{4}{3} \sqrt{161} = x$$

36.)



$$\frac{x}{140} = \frac{18}{10}$$

$$x = 18 \times 14 = 252 + 2 = \boxed{254 \text{ ft}}$$

Laser tripod