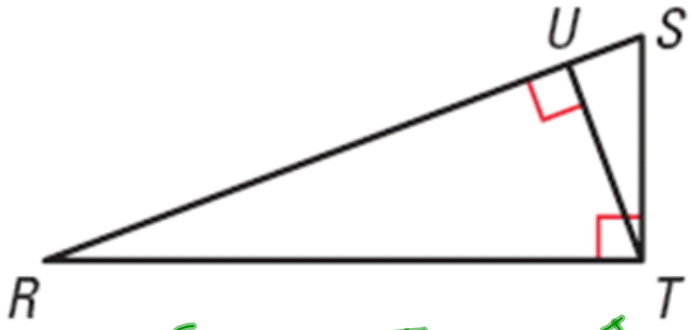
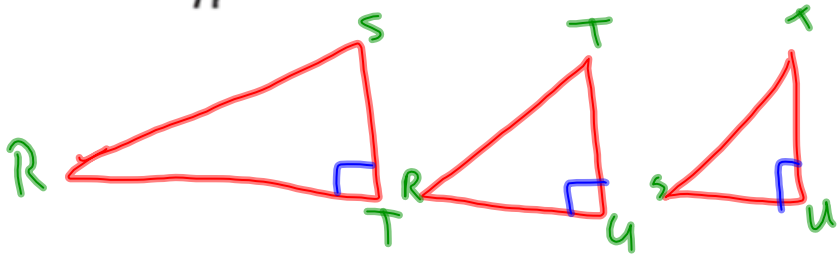
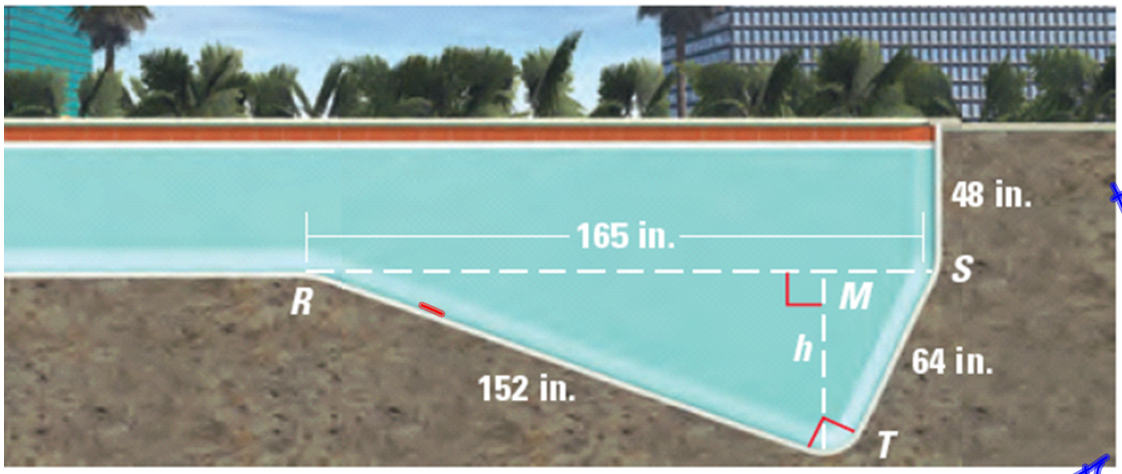
Chapter 7.3: Use Similar Right Triangles

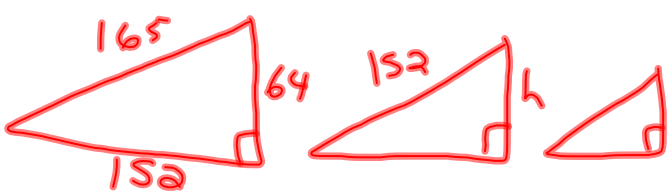




What is the max depth of the pool?



48
+ 59
107 in



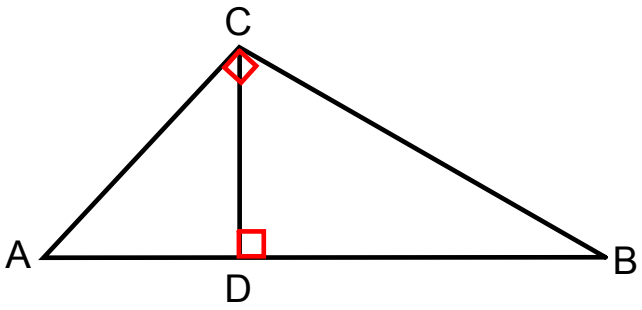
$\frac{165}{152} = \frac{64}{h}$

$\frac{152(64)}{165} = \frac{165h}{165}$

$h = 59$ in

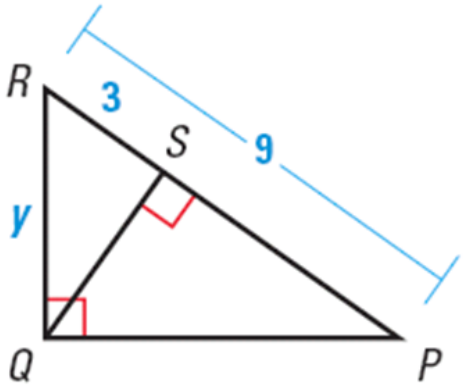
Using the geometric means.

$$\frac{a}{x} = \frac{x}{b}$$



$$\frac{BD}{CD} = \frac{CD}{AD} \qquad \frac{AB}{CB} = \frac{CB}{DB} \qquad \frac{AB}{AC} = \frac{AC}{AD}$$

Find the exact value of y.



$$\frac{hyB}{leg} = \frac{hyS}{leg}$$

$$\frac{9}{y} = \frac{y}{3}$$

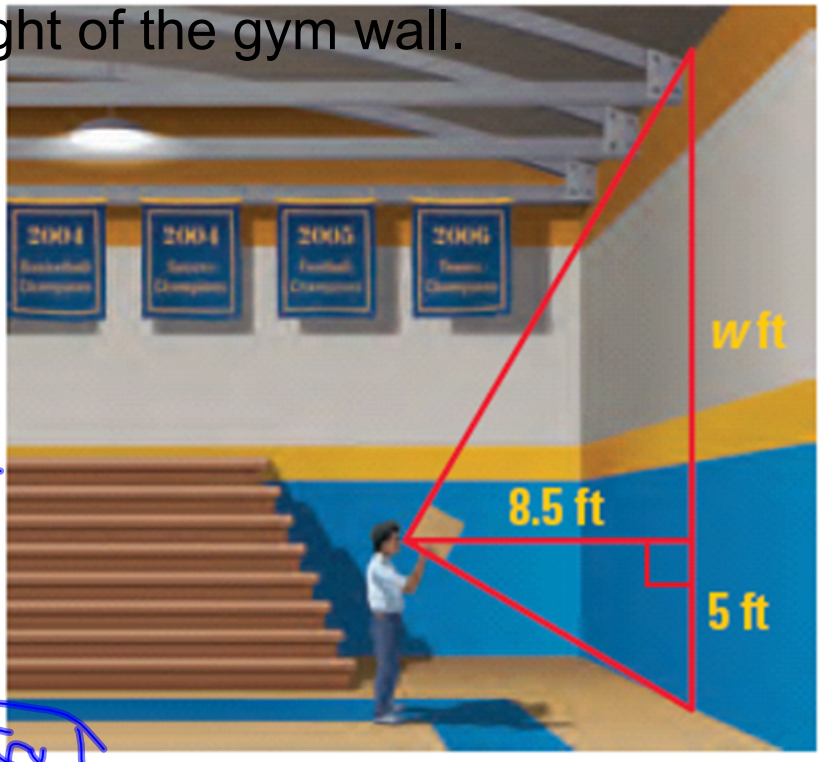
$$\sqrt{y^2} = \sqrt{27}$$

$$y = \sqrt{27}$$

$$y = \sqrt{9 \cdot 3}$$

$$y = 3\sqrt{3}$$

Find the height of the gym wall.



$\frac{w}{8.5} = \frac{8.5}{5}$

$\frac{72.25}{5} = \frac{5w}{5}$

$w = 14.45$

$+ 5$

19.45 ft

Homework: Chapter 7.3 pg.453
#'s 4-10e,14-18e,22-26e