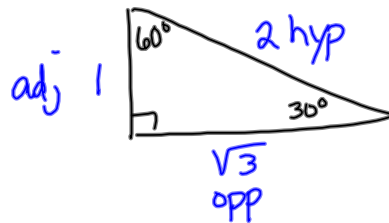


Special Right Triangles

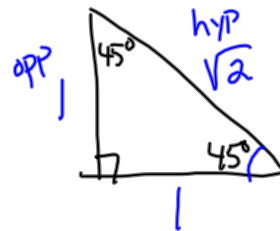
SOH CAH TOA

a. $\tan 60^\circ = \frac{\text{opp}}{\text{adj}} = \frac{\sqrt{3}}{1} = \sqrt{3}$



b. $\sin 45^\circ = \frac{\text{opp}}{\text{hyp}} = \frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2}$

$$\frac{1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

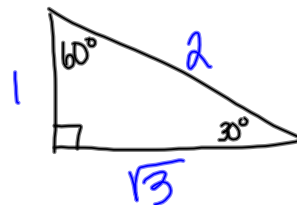


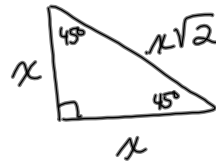
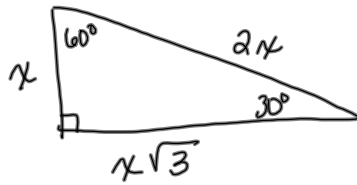
$$1^2 + 1^2 = c^2$$

$$1 + 1 = c^2$$

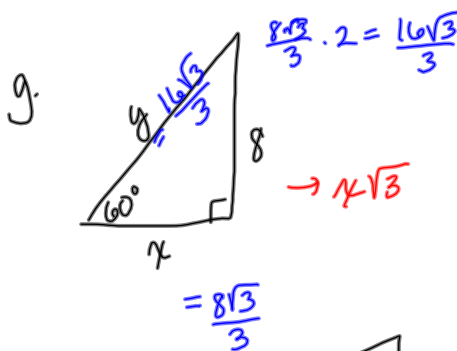
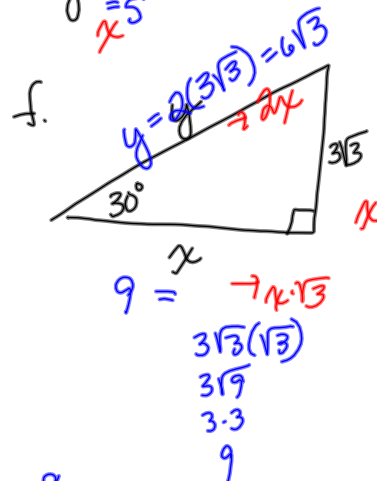
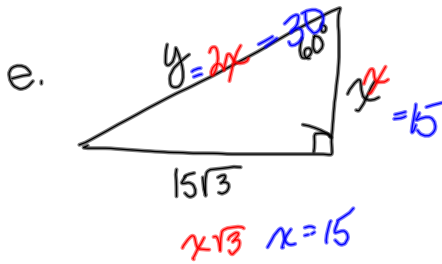
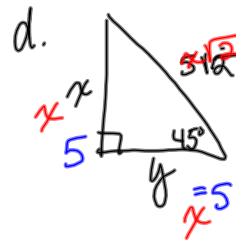
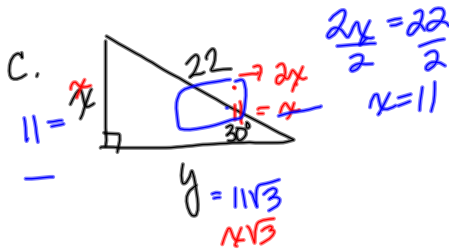
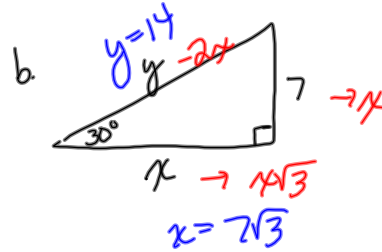
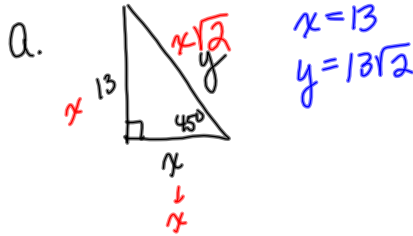
$$\sqrt{2} = c$$

c. $\cos 30^\circ = \frac{\text{adj}}{\text{hyp}} = \frac{\sqrt{3}}{2}$



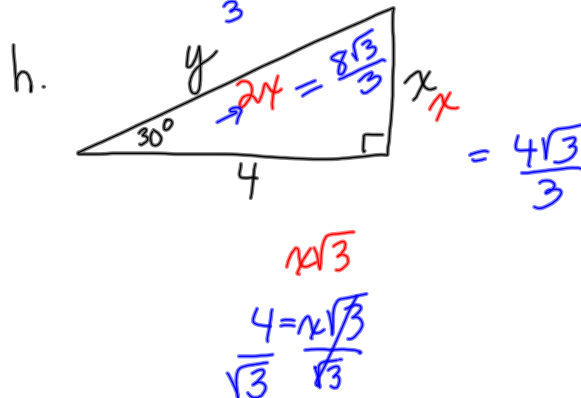


Ex: Find the exact values of x and y



$$\frac{x\sqrt{3}}{\sqrt{3}} = \frac{8}{\sqrt{3}}$$

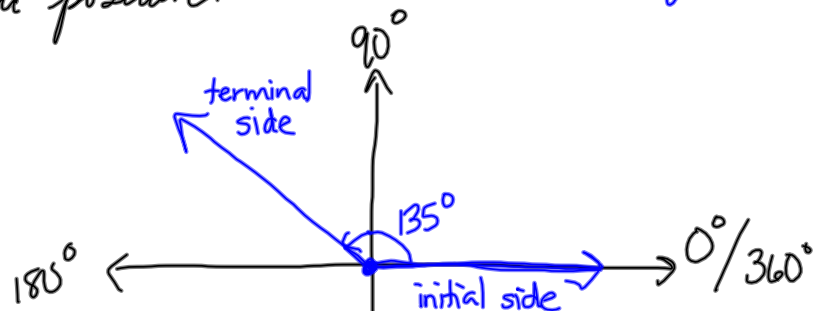
$$x = \frac{8 \cdot \sqrt{3}}{\sqrt{3} \cdot \sqrt{3}} = \frac{8\sqrt{3}}{3}$$



Sec. 9.2 Define General Angles and Use Radian Measure

Draw an angle with the given measure in standard position. \rightarrow vertex is on the origin

a. 135°



b. 640°

