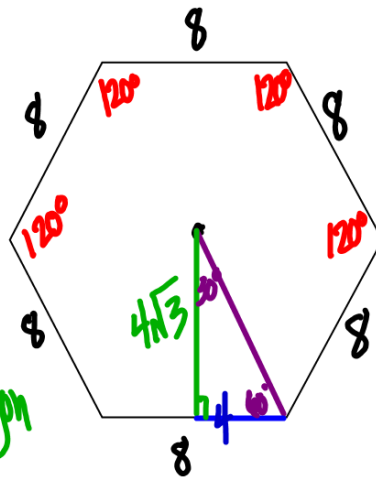


5.9 Sum of L's  
 $180(b-2) = 720^\circ$

Regular Hexagon  
 Each L  $\frac{720}{6}$   
 $120^\circ$

apothem  
 segment  
 from center  
 $\perp$  to any  
 side of polygon



All  
 sides  $\cong$

Area =  $\frac{1}{2}$  (apothem) (perimeter)

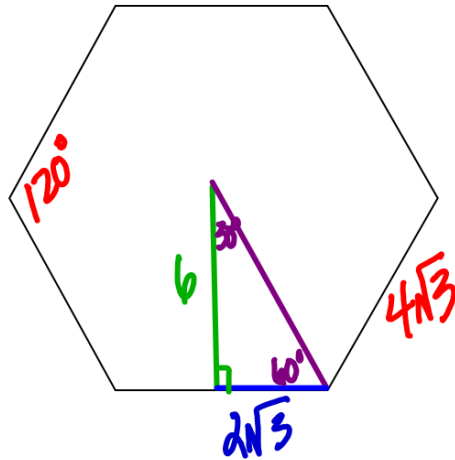
$A = \frac{1}{2} a p$  Regular Polygon

$A = \frac{1}{2} (4\sqrt{3}) (48)$

$A = 96\sqrt{3}$  units<sup>2</sup>

$A = 166.8$  units<sup>2</sup>

Perimeter  
 48 units



$$\frac{6}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}}$$

$$\frac{6\sqrt{3}}{\sqrt{9}}$$

$$\frac{6\sqrt{3}}{3}$$

$$2\sqrt{3}$$

Perimeter  $6(4\sqrt{3})$   
 $24\sqrt{3}$

$$A = \frac{1}{2} a p$$

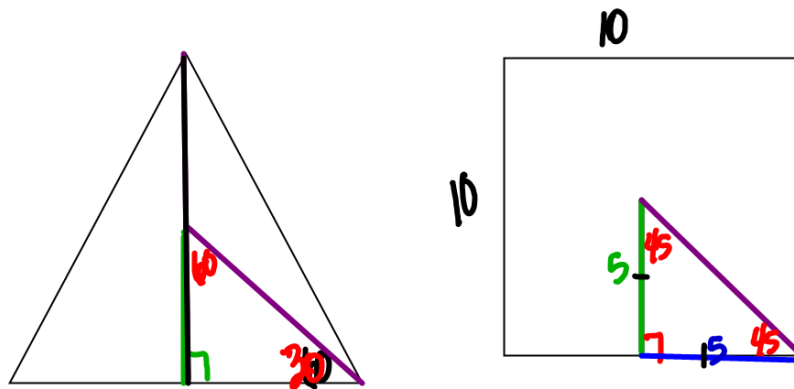
$$A = \frac{1}{2} (6) (24\sqrt{3})$$

$$A = 72\sqrt{3} \text{ units}^2$$

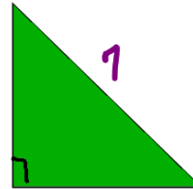
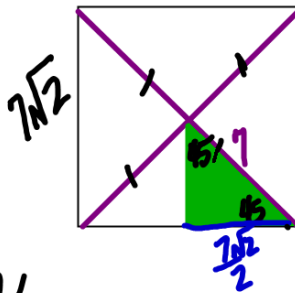
$$A = 124.7 \text{ units}^2$$

Exact *Simplest Radical Form*

Approx



p 337  
34-39 All



Square

$$A = \frac{1}{2}(\text{diagonal})^2$$

$$\frac{7}{\sqrt{2}} \cdot \frac{7}{\sqrt{2}}$$

$$\frac{7\sqrt{2}}{2}$$