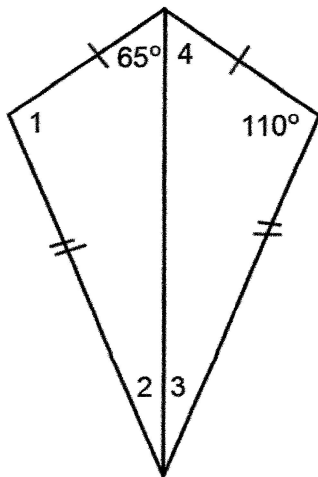


1. Find the measures of the numbered angles in this Kite.



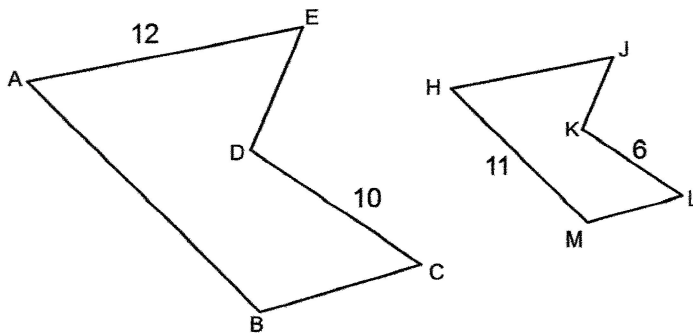
$m\angle 1 =$

$m\angle 2 =$

$m\angle 3 =$

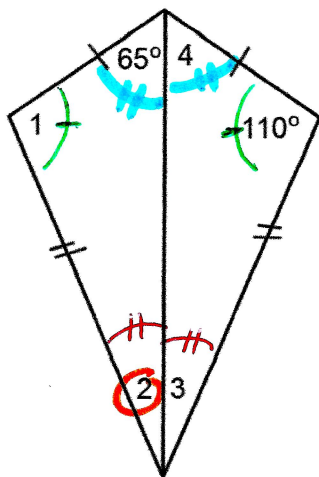
$m\angle 4 =$

2. The figures shown are similar. If the area of the larger figure is  $96 \text{ in}^2$  find the area of the smaller figure to the nearest hundredth.



ANSWERS

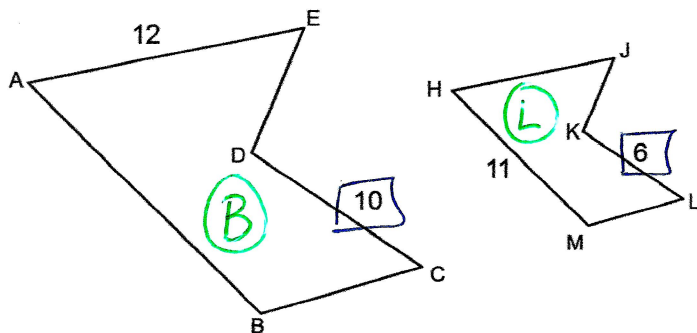
1. Find the measures of the numbered angles in this Kite.



$$m\angle 1 = 110^\circ \quad m\angle 2 = 5^\circ \quad m\angle 3 = 5^\circ \quad m\angle 4 = 65^\circ$$

$$\begin{aligned} \angle 2 &= 180 - 110 - 65 \\ &= 5 \end{aligned}$$

2. The figures shown are similar. If the area of the larger figure is  $96 \text{ in}^2$  find the area of the smaller figure to the nearest hundredth.



$$\text{SIMILARITY RATIO} : \frac{L}{B} = \frac{6}{10}$$

$$\text{RATIO of Areas} = \left( \frac{\text{Sim Ratio}}{\text{Ratio}} \right)^2$$

$$\frac{L}{B}$$

$$\frac{x}{96 \text{ m}^2} = \left( \frac{6}{10} \right)^2$$

$$\frac{x}{96} = \frac{36}{100}$$

$$\text{Area of Smaller figure} = 34.56 \text{ in}^2$$