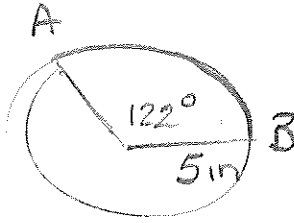


Sample items

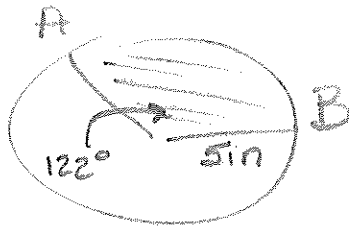
arc length



$$\frac{\theta}{360} \cdot 2\pi r$$

$$\frac{122}{360} \cdot 2\pi(5) \approx 10.65 \text{ in}$$

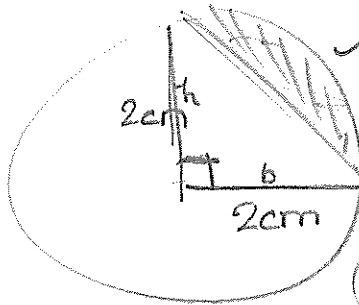
sector area



$$\frac{\theta}{360} \cdot \pi r^2$$

$$\frac{122}{360} \cdot \pi 5^2 = 26.62 \text{ in}^2$$

Probability



what % is shaded

$$\frac{90}{360} \cdot \pi 2^2 - \frac{1}{2} 2 \cdot 2$$

$$3.14 - 2 = \underline{1.14 \text{ cm}^2}$$

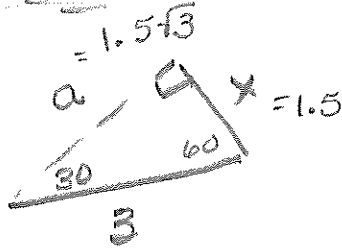
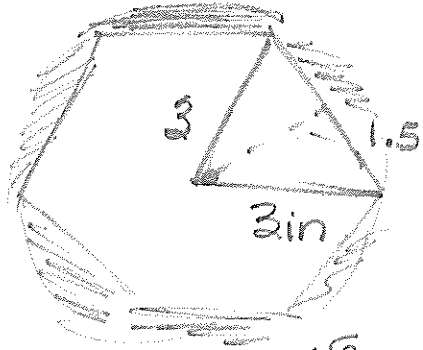
Total Area

$$\pi 2^2$$

$$P = \frac{1.14}{12.56}$$

$$= 9\%$$

Polygons



$$\text{or } \sin 30 = \frac{x}{3}$$

$$\cos 30 = \frac{a}{3}$$

Area circle

$$\pi 3^2 = 9\pi$$

$$\underline{28.27 \text{ in}^2}$$

Area hexagon

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

$$= \frac{1}{2} (1.5\sqrt{3})(1.5(12))$$

$$= \underline{23.38 \text{ in}^2}$$

Area shaded

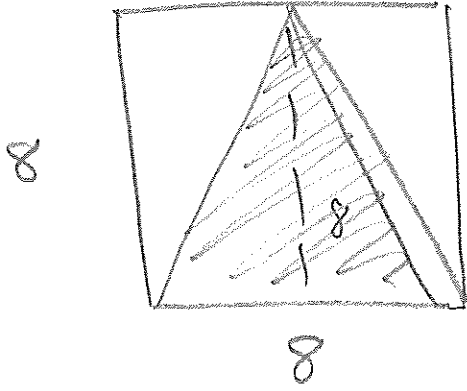
$$28.27 - 23.38$$

$$\underline{4.89 \text{ in}^2}$$

P(shaded) or % shaded

$$\frac{4.89}{28.27} \approx 0.173$$

$$17.3\%$$



$$\frac{1}{2}$$

$$A_{\square} = 64$$

$$A_{\Delta} = \frac{1}{2}(8)(8) = 32$$

% shaded

$$\frac{32}{64} = 50\%$$