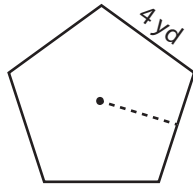


## Finding Apothem

**Example:**

Find the apothem of the polygon.



$$\text{Perimeter} = \text{number of sides} \times \text{side length}$$

$$= 5 \times 4 = \mathbf{20 \text{ yd}}$$

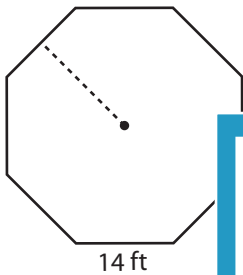
$$\text{Area} = 27.5 \text{ yd}^2$$

$$\text{Apothem} = \frac{2 \times \text{area}}{\text{perimeter}}$$

$$= \frac{2 \times 27.5}{20} = \mathbf{2.75 \text{ yd}}$$

Find the perimeter and apothem of each polygon. Round your answer to two decimal places.

1)

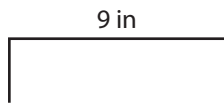


$$\text{Area} = 946.40 \text{ ft}^2$$

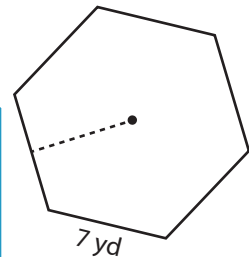
$$\text{Perimeter} = \underline{\hspace{2cm}}$$

$$\text{Apothem} = \underline{\hspace{2cm}}$$

2)



3)

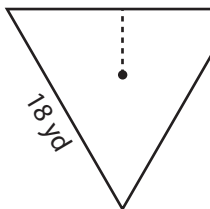


$$\text{Area} = 127.29 \text{ yd}^2$$

$$\text{Perimeter} = \underline{\hspace{2cm}}$$

$$\text{Apothem} = \underline{\hspace{2cm}}$$

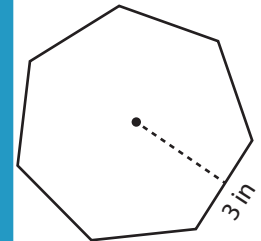
4)



$$\text{Area} = 140.29 \text{ yd}^2$$

$$\text{Perimeter} = \underline{\hspace{2cm}}$$

$$\text{Apothem} = \underline{\hspace{2cm}}$$

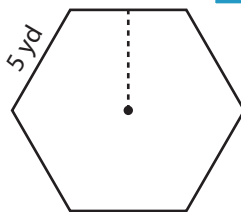


$$\text{Area} = 32.70 \text{ in}^2$$

$$\text{Perimeter} = \underline{\hspace{2cm}}$$

$$\text{Apothem} = \underline{\hspace{2cm}}$$

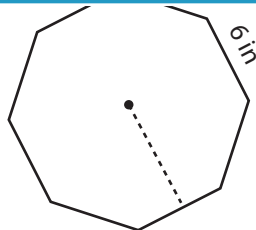
7)



$$\text{Area} = 64.95 \text{ yd}^2$$

$$\text{Perimeter} = \underline{\hspace{2cm}}$$

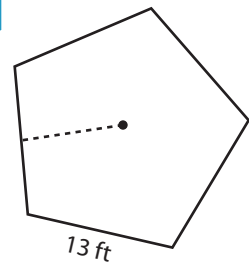
$$\text{Apothem} = \underline{\hspace{2cm}}$$



$$\text{Area} = 173.83 \text{ in}^2$$

$$\text{Perimeter} = \underline{\hspace{2cm}}$$

$$\text{Apothem} = \underline{\hspace{2cm}}$$



$$\text{Area} = 290.78 \text{ ft}^2$$

$$\text{Perimeter} = \underline{\hspace{2cm}}$$

$$\text{Apothem} = \underline{\hspace{2cm}}$$

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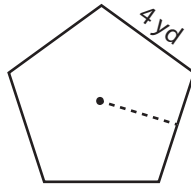
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**Finding Apothem****Example:**

Find the apothem of the polygon.



$$\text{Perimeter} = \text{number of sides} \times \text{side length}$$

$$= 5 \times 4 = \mathbf{20 \text{ yd}}$$

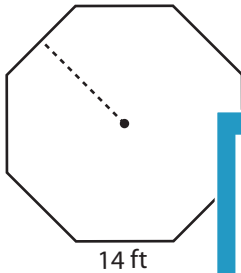
$$\text{Area} = 27.5 \text{ yd}^2$$

$$\text{Apothem} = \frac{2 \times \text{area}}{\text{perimeter}}$$

$$= \frac{2 \times 27.5}{20} = \mathbf{2.75 \text{ yd}}$$

Find the perimeter and apothem of each polygon. Round your answer to two decimal places.

1)

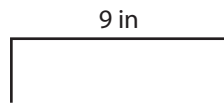


$$\text{Area} = 946.40 \text{ ft}^2$$

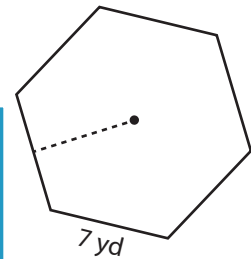
$$\text{Perimeter} = \mathbf{112 \text{ ft}}$$

$$\text{Apothem} = \mathbf{16.9 \text{ ft}}$$

2)



3)

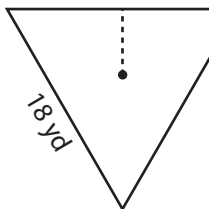


$$\text{Area} = 127.29 \text{ yd}^2$$

$$\text{Perimeter} = \mathbf{42 \text{ yd}}$$

$$\text{Apothem} = \mathbf{6.06 \text{ yd}}$$

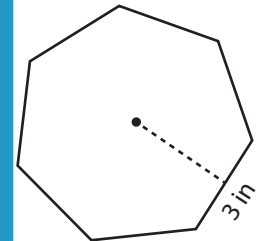
4)



$$\text{Area} = 140.29 \text{ yd}^2$$

$$\text{Perimeter} = \mathbf{54 \text{ yd}}$$

$$\text{Apothem} = \mathbf{5.2 \text{ yd}}$$

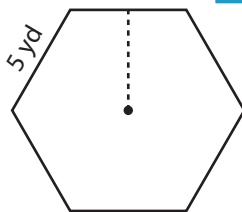


$$\text{Area} = 32.70 \text{ in}^2$$

$$\text{Perimeter} = \mathbf{21 \text{ in}}$$

$$\text{Apothem} = \mathbf{3.11 \text{ in}}$$

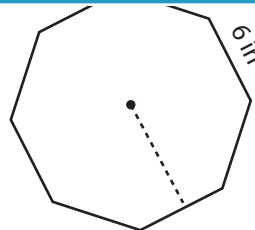
7)



$$\text{Area} = 64.95 \text{ yd}^2$$

$$\text{Perimeter} = \mathbf{30 \text{ yd}}$$

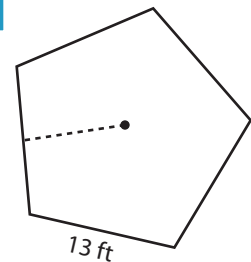
$$\text{Apothem} = \mathbf{4.33 \text{ yd}}$$



$$\text{Area} = 173.83 \text{ in}^2$$

$$\text{Perimeter} = \mathbf{48 \text{ in}}$$

$$\text{Apothem} = \mathbf{7.24 \text{ in}}$$



$$\text{Area} = 290.78 \text{ ft}^2$$

$$\text{Perimeter} = \mathbf{65 \text{ ft}}$$

$$\text{Apothem} = \mathbf{8.95 \text{ ft}}$$

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