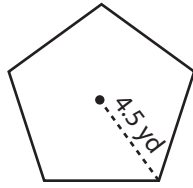


Area of a Polygon

Example:

Find the area of the polygon.

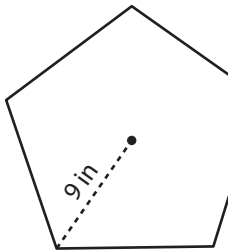


$$\begin{aligned} \text{Area} &= \frac{r^2 \times n \times \sin\left(\frac{360}{n}\right)}{2} \\ &= \frac{20.25 \times 5 \times \sin\left(\frac{360}{5}\right)}{2} = 48.15 \text{ yd}^2 \end{aligned}$$

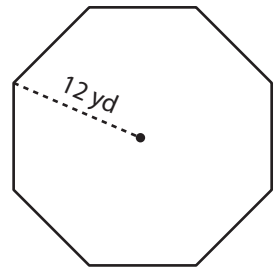
r = circumradius
 n = number of sides

Find the area of each polygon using the given circumradius. Round your answer to two decimal places.

1)

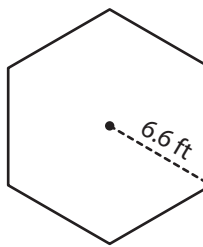


Area = _____

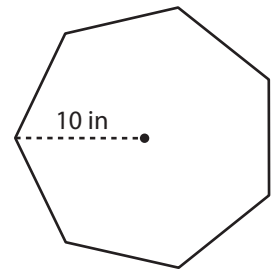


Area = _____

4)

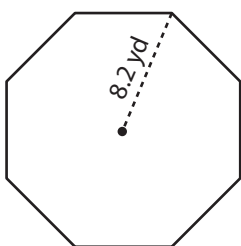


Area = _____



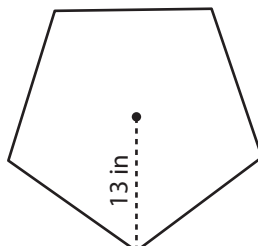
Area = _____

7)



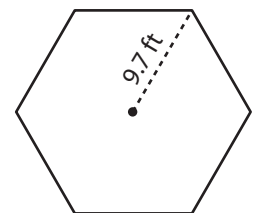
Area = _____

8)



Area = _____

9)



Area = _____

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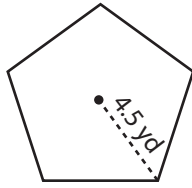
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Area of a Polygon

Example:

Find the area of the polygon.



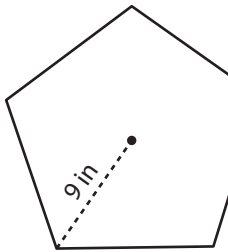
$$\text{Area} = \frac{r^2 \times n \times \sin\left(\frac{360}{n}\right)}{2}$$

$$= \frac{20.25 \times 5 \times \sin\left(\frac{360}{5}\right)}{2} = 48.15 \text{ yd}^2$$

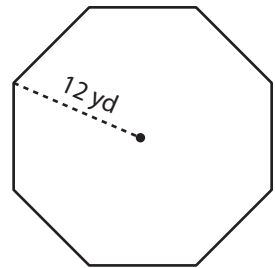
r = circumradius
 n = number of sides

Find the area of each polygon using the given circumradius. Round your answer to two decimal places.

1)

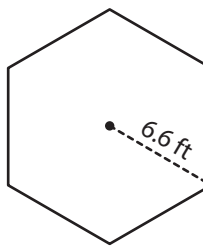


Area = 192.59 in²

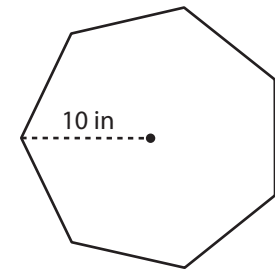


Area = 407.29 yd²

4)

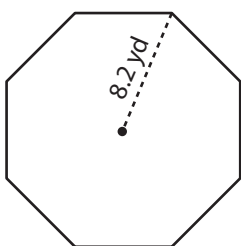


Area = 113.17 ft²



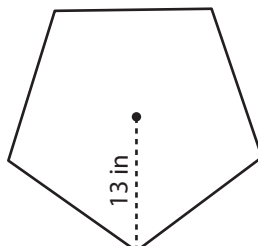
Area = 273.64 in²

7)



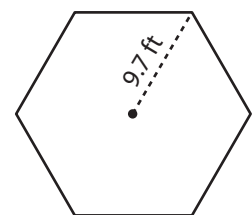
Area = 190.18 yd²

8)



Area = 401.82 in²

9)



Area = 244.45 ft²

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