

Chapter 10 Review (Part 1)

Match the correct area formula with each shape.

Rectangle/Parallelogram

Triangle (regular)

Triangle (trigonometric)

Trapezoid

Rhombus/Kite

Regular polygon

Circle

Sector of a circle

Segment of a circle

$$A = \pi r^2$$

$$A = \frac{1}{2}bh$$

$$A = bh$$

$$A = \text{area of sector} - \text{area of triangle}$$

$$A = \frac{1}{2}ap$$

$$A = \frac{1}{2}d_1d_2$$

$$A = \frac{m\widehat{PR}}{360} \cdot \pi r^2$$

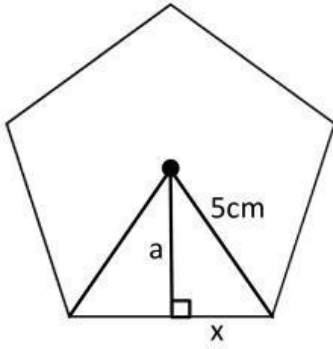
$$A = \frac{1}{2}h(b_1 + b_2)$$

$$A = \frac{1}{2}bc(\sin A)$$

Find the area of each polygon. Leave your answer in terms of pi when necessary.

- 1.) a triangle with a base of 3cm and a height of 5 cm
- 2.) a trapezoid with a height of 8in and bases of 12in and 17in
- 3.) a kite with diagonal lengths of 6m and 9m
- 4.) a circle with a diameter of 14mm
- 5.) a pentagon with an apothem of 7cm and side lengths of 16cm
- 6.) a parallelogram with a base length of 9in and a height of 10in

Fill in each missing blank to finish finding the area of the pentagon.
Round to the nearest tenth.



Step 1: Find the angle.

$$\frac{360}{5} = 72 \quad \frac{72}{2} =$$

Step 2: Find the apothem.

$$(36) = \frac{x}{5}$$

$$a = 5(\quad 36)$$

Step 3: Find the perimeter.

$$(36) = \frac{x}{5}$$

$$x = (\quad 36)$$

$$p = 2x \cdot \quad = 2[5(\quad 36)] \cdot$$

Step 4: Find the area.

$$A = \frac{1}{2} \cdot \quad \cdot$$

$$A = \frac{1}{2} \cdot [5(\quad 36)] \cdot 2[5(\quad 36)] \cdot$$

$$A =$$