Math 9 – Unit 5: Measurement Name: _____

Lesson #1: Perimeter and Area of 2D Figures Date: _____

Learning Goal: We are learning to calculate the perimeter, circumference, and area for common 2D simple and compound shapes.

Welcome back to Mathematics! We will kick off our second half with a unit which you should be familiar with. There will be some new ideas, but overall, this is always a great unit to get back into Math. Let's dive in.

Important Formulas

Perimeter – simply add up all the outside edges, regardless of the shape (not circles!)

Area of a square/rectangle: $A = lw$

Area of a triangle: $A = \frac{1}{2}bh$ or $A = \frac{bh}{2}$

Area of a trapezoid: $A = \frac{(a+b)h}{2}$

Area of a circle: $A = \pi r^2$ (pi = 3.14)

Circumference of a circle: $C = 2\pi r$

Find the perimeter (if possible) and area of each shape.

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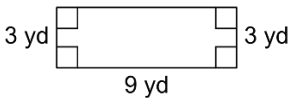

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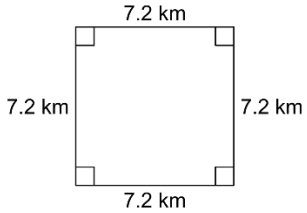

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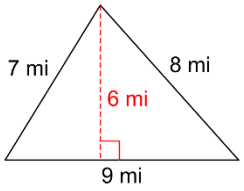

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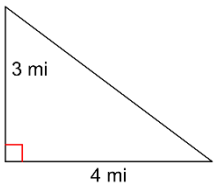

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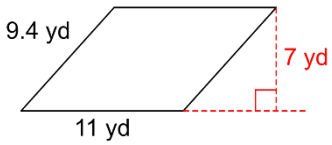

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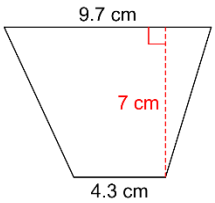

Find the circumference and the area of each circle.

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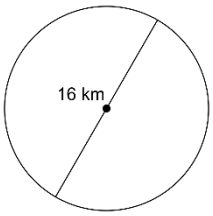

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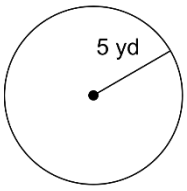


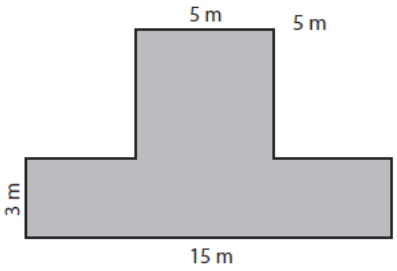
Use the appropriate formula to find the missing piece.

9. A triangle has a height of 22cm and an area of 143cm^2. What is the length of the base?

10. A large pizza has an area of 201in^2. What is the diameter, in inches, of the pizza.

Find the area of the compound figures.

11.



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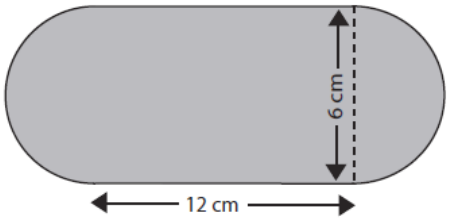

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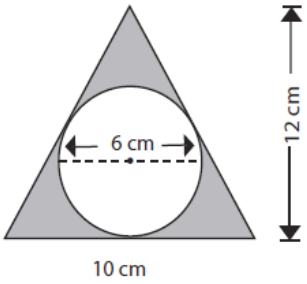

Success Criteria:

- I can find the perimeter and area of a square, rectangle, triangle, parallelogram, or trapezoid
- I can find the circumference and area of a circle
- I can find the area of compound shapes by breaking them down into simpler shapes
- I can, if given the area, find another missing dimension