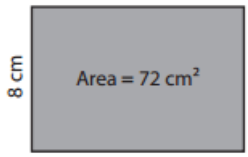
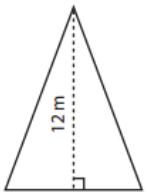
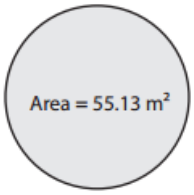
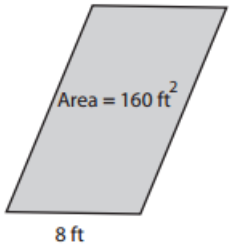
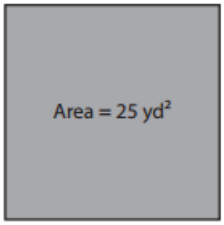
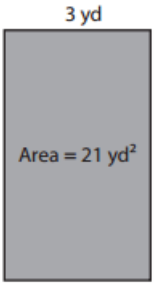
Name _____ Period _____

Algebra 8: Geometry Unit Day 3

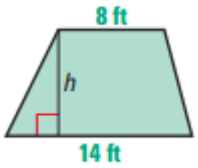
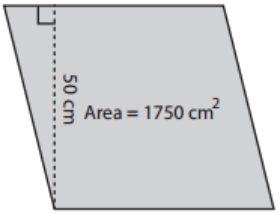
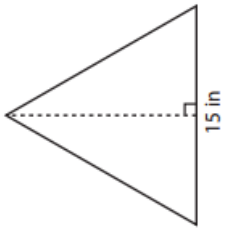
Working Backwards with Area Formulas: Area formulas can be used to calculate area, but they can also be used to find other variables in the formulas. Use the given areas and you equation solving skills to calculate the missing values. Round to the nearest hundredth if necessary.

Shape Name	Figure/Formula	Calculations	Value of Variable
Rectangle *Find the base.*	 **Formula**		
Triangle *Find the base.*	 Area = 48 m **Formula**		
Circle *Find the radius.*	 **Formula**		

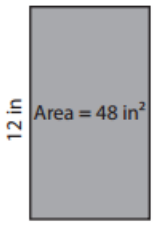
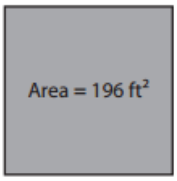
Name _____ Period _____

Parallelogram *Find the height.*	 **Formula**		
Square *Find the side.*	 **Formula**		
Rectangle *Find the height.*	 **Formula**		

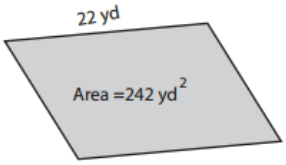
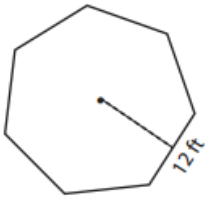
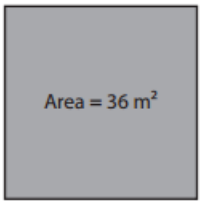
Name _____ Period _____

Trapezoid *Find the height.*	. $A = 77\ \text{ft}^2$  **Formula**		
Parallelogram *Find the base.*	 **Formula**		
Triangle *Find the height..*	 Area = 90 in **Formula**		

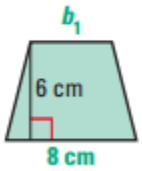
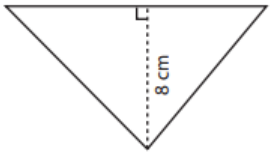
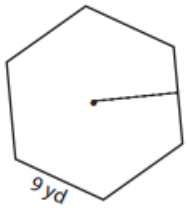
Name _____ Period _____

Rectangle *Find the base.*	 **Formula**		
Circle *Find the radius.*	 **Formula**		
Square *Find the side.*	 **Formula**		

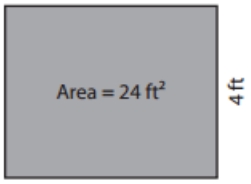
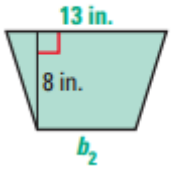
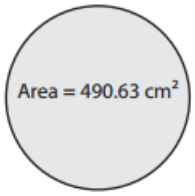
Name _____ Period _____

Parallelogram *Find the height.*	 **Formula**		
Regular Polygon *Find the apothem.*	 Area = 523.32 ft^2 **Formula**		
Square *Find the side.*	 **Formula**		

Name _____ Period _____

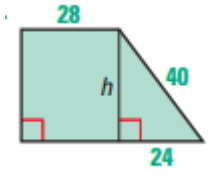
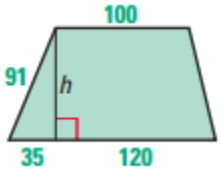
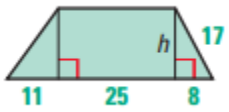
Trapezoid *Find the base.*	$A = 39\ \text{cm}^2$  **Formula**		
Triangle *Find the base.*	 Area = 52 cm **Formula**		
Regular Polygon *Find the apothem.*	 Area = 210.33 yd^2 **Formula**		

Name _____ Period _____

Rectangle *Find the base.*	 **Formula**		
Trapezoid *Find the base.*	$A = 84 \text{ in.}^2$  **Formula**		
Circle *Find the radius.*	 **Formula**		

Name _____ Period _____

Pythagorean Theorem and Area: When you do not have all of the information you need to calculate the area of a figure, the Pythagorean Theorem can be a useful tool. Use the Pythagorean Theorem to help you find the areas of the trapezoids.

Figure/Formula	Find the Height	Calculations	Area
 **Formula**			
 **Formula**			
 **Formula**			

Name ____ Period ______