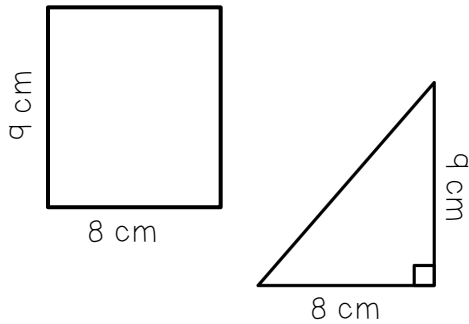


AREA OF TRIANGLES AND TRAPEZOIDS

Two different figures are sketched and labeled below. Complete the t-chart to compare their similarities and differences.



SIMILARITIES	DIFFERENCES

a. If the formula for finding the area of a rectangle is $A=bh$, how could you describe the formula for finding the area of a triangle?

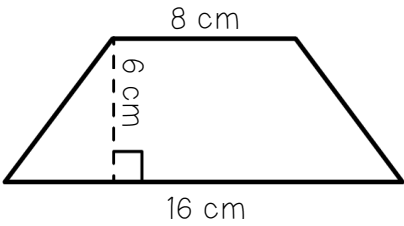
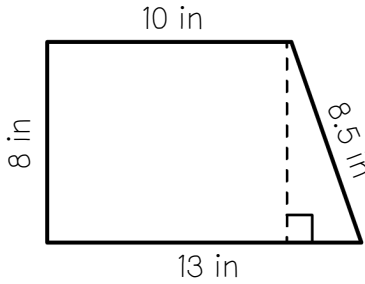
b. What is the area of the rectangle? What is the area of the triangle? Was your hypothesis correct?

Count the dimensions of the first figure below and determine the area. Then, use the formula to find the area of triangles 2 and 3.

TRIANGLE 1	TRIANGLE 2	TRIANGLE 3
<p>Formula: _____</p> <p>Plug in Values: _____</p> <p>Area: _____</p>	<p>Formula: _____</p> <p>Plug in Values: _____</p> <p>Area: _____</p>	<p>Formula: _____</p> <p>Plug in Values: _____</p> <p>Area: _____</p>

How do you determine the height of the triangle?

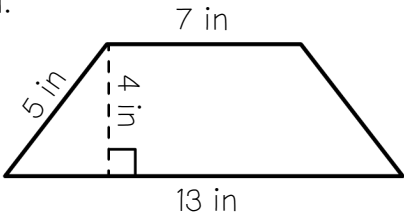
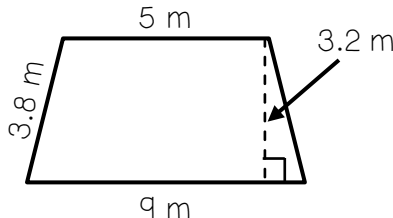
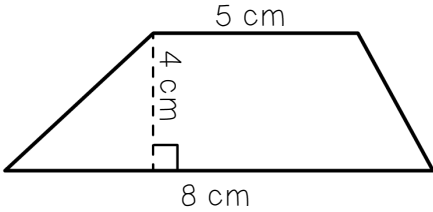
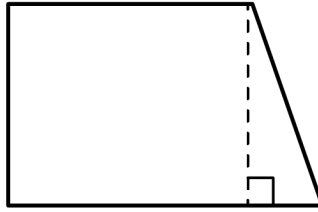
Decompose (take apart) the trapezoids below into familiar shapes. Then, find the area of each trapezoid.

TRAPEZOID 1	TRAPEZOID 2
	

AREA OF TRAPEZOIDS

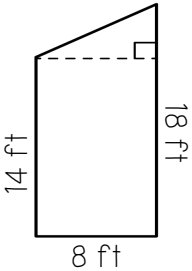
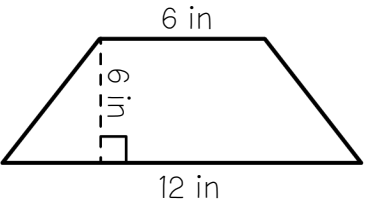
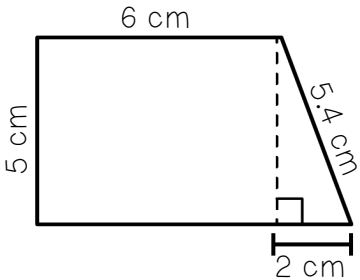
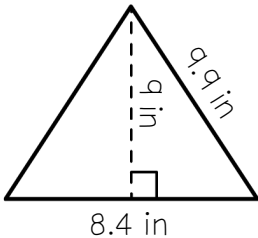
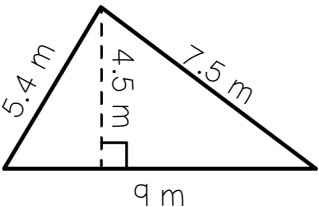
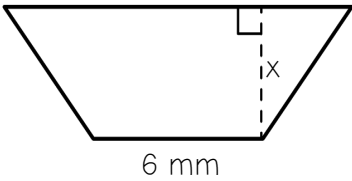
- A trapezoid is one or two _____ and a _____ combined.
- To find the area, use the formula _____, where:
 - b_1 is the _____
 - b_2 is the _____ and
 - h is the _____ of the trapezoid.

Use your understanding of area to answer the questions below.

<p>1. Use a formula to determine the area of the trapezoid.</p>  <p>Formula: _____</p> <p>Plug in Values: _____</p> <p>Area: _____</p>	<p>2. Use a formula to determine the area of the trapezoid.</p>  <p>Formula: _____</p> <p>Plug in Values: _____</p> <p>Area: _____</p>
<p>3. Betsy has calculated the area of the figure below to be 52 cm^2. Determine if she is correct or incorrect, then explain.</p> 	<p>4. The trapezoid below has an area of 192 ft^2. What is the height of the trapezoid?</p> 

AREA OF TRIANGLES AND TRAPEZOIDS

Match each correct answer to a letter and complete the riddle below. Not all choices will be used.

<p>1</p> <p>Find the area of a right triangle with a height of $8\frac{1}{2}$ feet and a base of 15 feet.</p>	<p>5</p> <p>Find the area of the trapezoid at the right by decomposing it into familiar shapes.</p> 
<p>2</p> <p>What is the area of the trapezoid?</p> 	<p>6</p> <p>A triangle has an area of 42 cm^2. The height of the triangle is 14 centimeters. What is the length of the base of the triangle?</p>
<p>3</p> <p>Find the area of the trapezoid at the right.</p> 	<p>7</p> <p>What is the area of the triangle?</p> 
<p>4</p> <p>Find the area of the triangle below.</p> 	<p>8</p> <p>A trapezoid has an area of 35 mm^2. What is the height of the trapezoid?</p> 

L: 36	A: 5	F: 12.15	H: 56	R: 37.8	I: 127.5
S: 50.4	C: 12	U: 20.25	N: 35	P: 108	A: 128
R: 63.75	Q: 3	W: 35.4	E: 6	G: 54	T: 24

WHAT DO GEOMETRY TEACHERS HAVE DECORATING THEIR FLOORS?

_ _ _ _ _
5 3 8 1 6 8 7 4 2