



Math Virtual Learning

6th Grade Math

Area of Composite Shapes Part 2

April 24, 2020



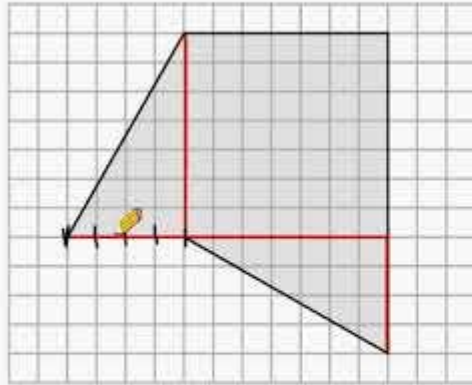
6th Grade Math
Lesson: April 24, 2020

Objective/Learning Target:

Students will find the area of composite shapes/polygons by composing or decomposing the shapes into rectangles and triangles.

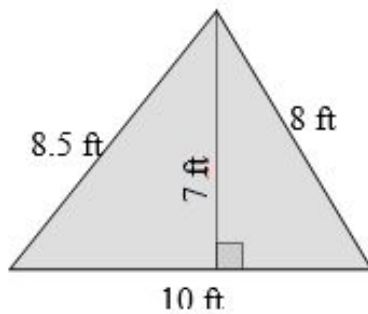
Let's Get Started!

Watch This Video:

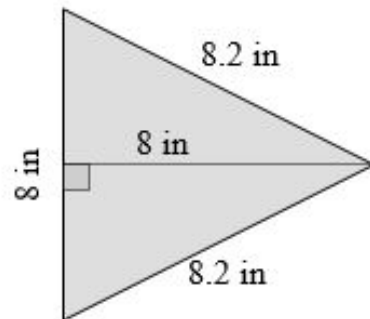


Bell Ringer:

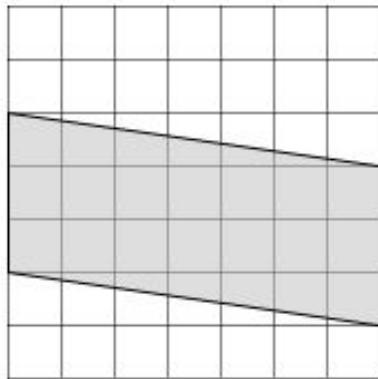
1) $A =$ _____



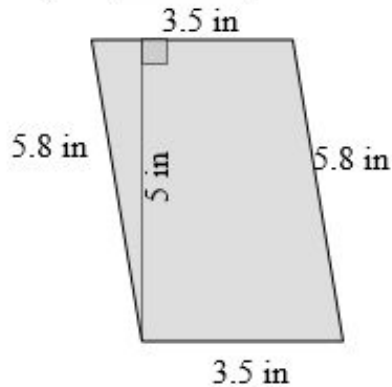
2) $A =$ _____



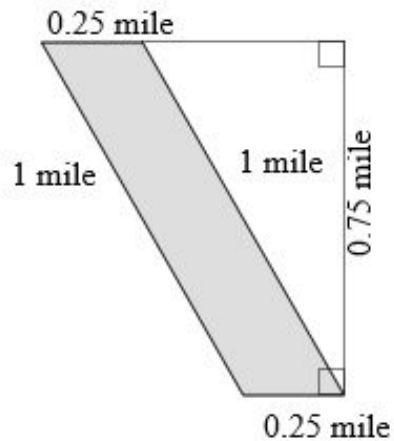
3) $A =$ _____



4) $A =$ _____



5) $A =$ _____

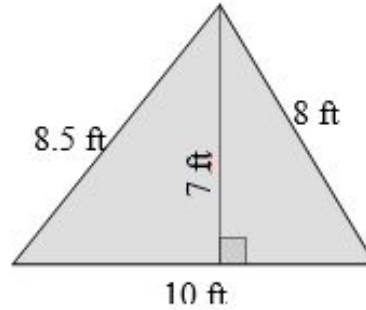


Bell Ringer: (answers)

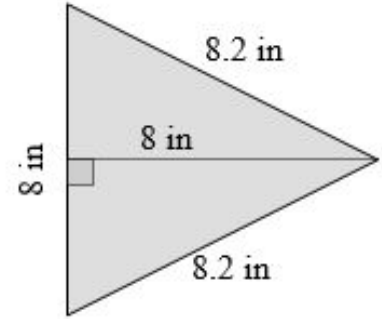
Remember the formula for the area of a triangle is $\frac{1}{2}bh$ or $(bh)/2$. You must divide by two!

Don't forget that the base and height must be perpendicular.

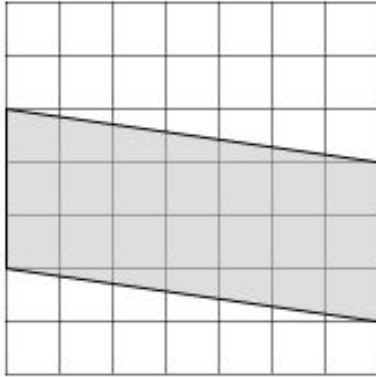
1) A= **35 sq. ft.**



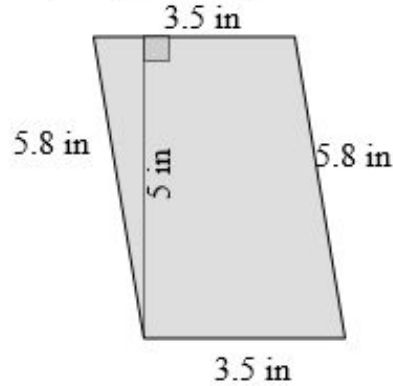
2) A= **32 sq. ft.**



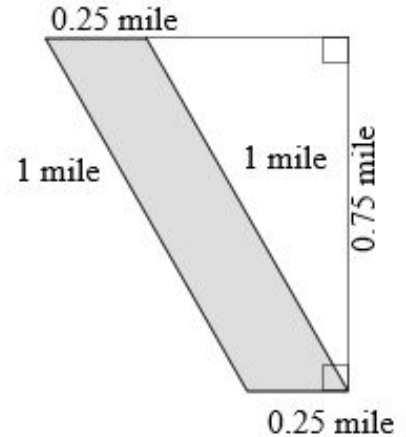
3) A= **21 sq. ft.**



4) A= **17.5 sq. ft.**

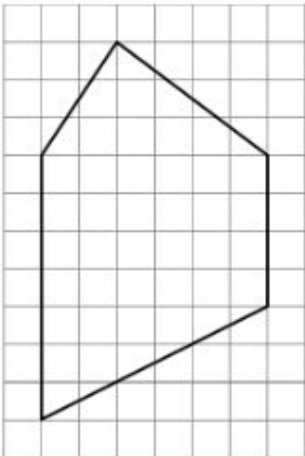


5) A= **0.1875 sq. ft.**

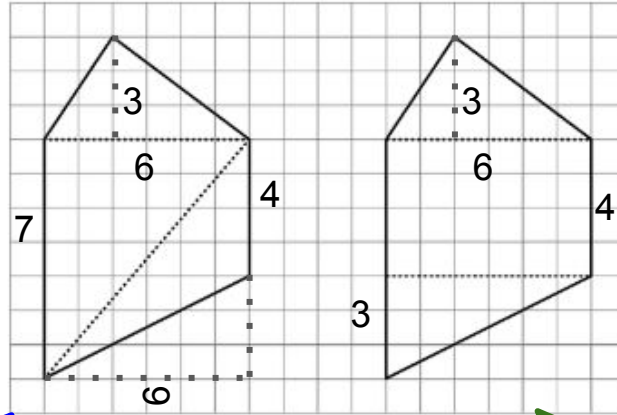


Learn:

Here is a five-sided polygon.



The polygon can be decomposed into three triangles or into two triangles and a rectangles.



If you decompose the polygon into 3 triangles, you can calculate the area of each.

Triangle A:	Triangle B:	Triangle C:
$(6 \times 3)/2 = 9$	$(7 \times 6)/2 = 21$	$(4 \times 6)/2 = 12$

Then add to find the total area.
 $9 + 21 + 12 = \mathbf{42 \text{ sq. un.}}$

If you decompose the polygon into 2 triangles and a rectangle, you can calculate the area of each.

Triangle A:	Triangle B:	Rectangle:
$(6 \times 3)/2 = 9$	$(3 \times 6)/2 = 9$	$(4 \times 6) = 24$

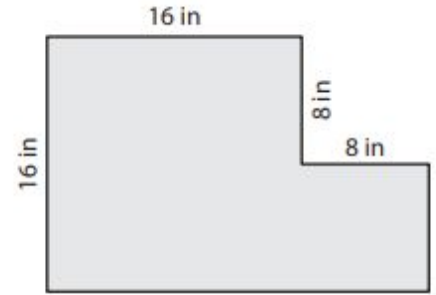
Then add to find the total area.
 $9 + 9 + 24 = \mathbf{42 \text{ sq. un.}}$

Practice:

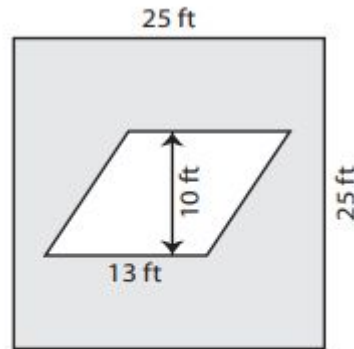
Find the area of the shaded region of each composite figure.



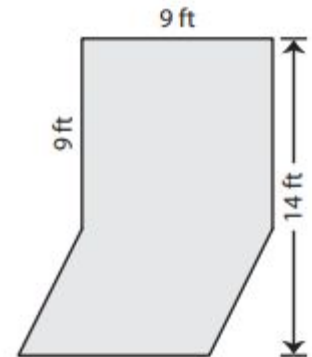
Area = _____



Area = _____



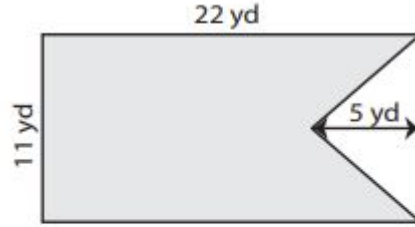
Area = _____



Area = _____

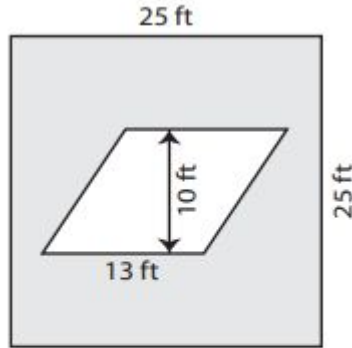
Practice (answers):

Find the area of the 22 yd
x 11 yd = 242, then
subtract the triangle
 $\frac{1}{2} \times 5 \times 11 = 27 \frac{1}{2}$.

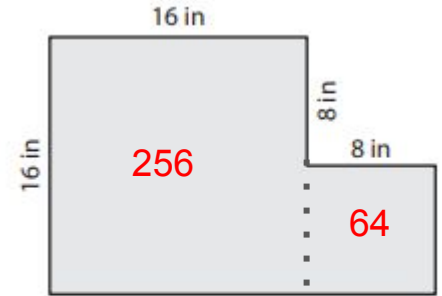


Area = 214.5 yd²

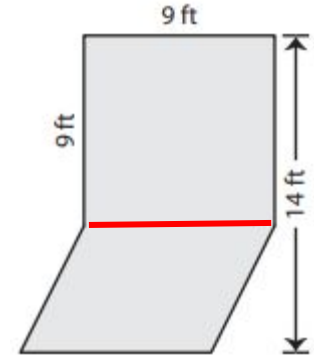
Find the area of the 25 ft x 25 ft
square = 625, then subtract the
parallelogram 13 ft x 10 ft = 130.



Area = 495 ft²



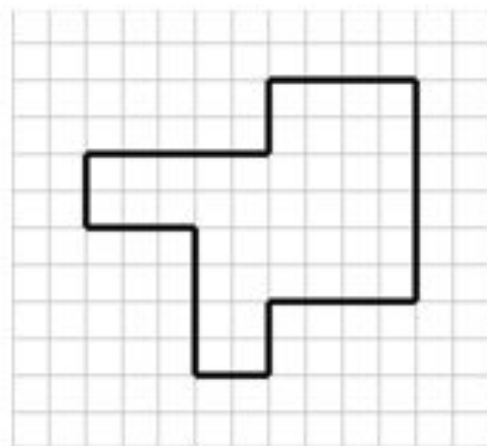
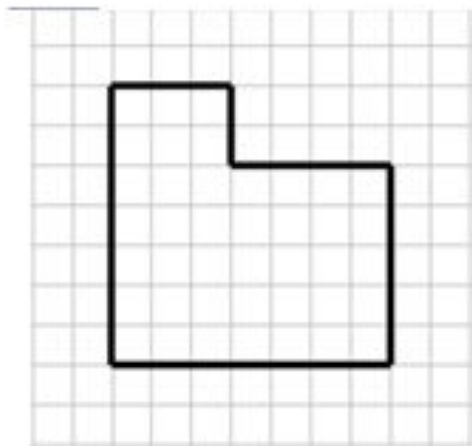
Area = 320 in²



Area = 126 ft²

Additional Practice:

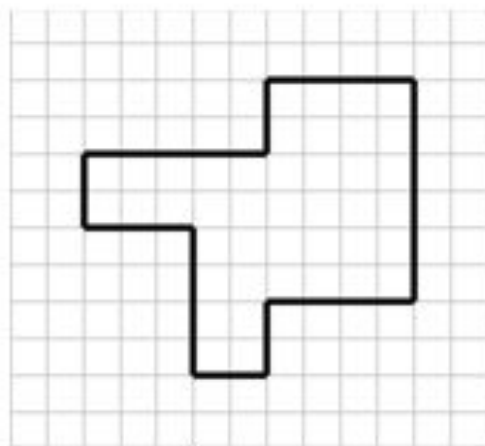
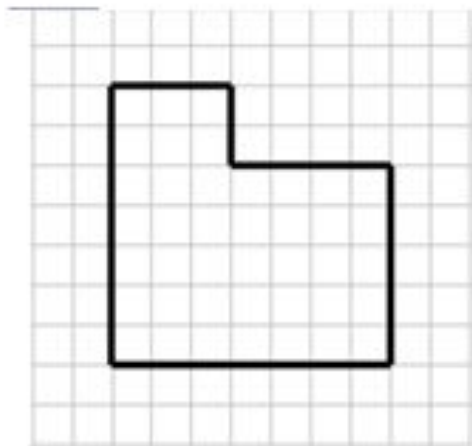
What is the area of the shapes below? Show at least two ways for finding the area of each shape.



Additional Practice: *(Answer Key)*

What is the area of the shapes below? Show at least two ways for finding the area of each shape.

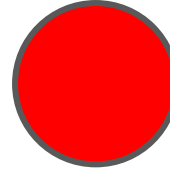
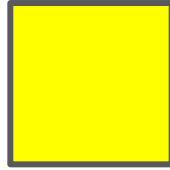
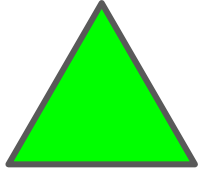
Click this [link](#)
to find possible
steps to the solution.



Counting the squares inside the figure is certainly one way to find the area, but it is not always the most efficient way when the figure is fairly large and the squares are small. A more efficient strategy involves creating rectangles within the figure, finding the area of those rectangles, and adding those areas to get the area of the composite figure.

Reflection:

Complete the triangle-square-circle reflection for today's lesson.



**What were the
three main
points of today's
lesson?**

**What squared
(made sense)
with you from
today's lesson?**

**What questions
do you still have
circling around in
your head?**

Additional Resources:

Click on the links below to get additional practice and to check your understanding!

[Area of L composite shape](#)

[Math Games: Area of Composite Shapes](#)

[Math Score: Area of Composite Shapes](#)