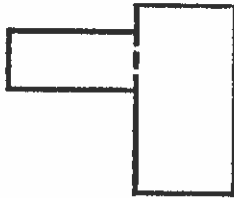## 9.6 Area of Composite Figures (6.G.1)

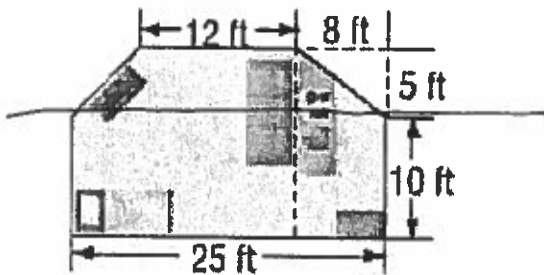**Vocabulary**

<u>composite figure</u> – a figure made of two or more two-dimensional figures.

The composite figure shown below is made up of ___two___ rectangles.

Guided Practice

1.) The manager of an apartment complex will install new carpeting in a studio apartment. The floor plan is shown at the right. What is the **total area** that needs to be carpeted?

$A = b \cdot h$
$A = 25 \cdot 10$
$A = 250 \, ft^2$

$A = \frac{1}{2} \cdot h \cdot (b + b)$
$A = \frac{1}{2} \cdot 5 \cdot (25 + 12)$ *(37)*
$A = 92.5 \, ft^2$

Total Area $= 342.5 \, ft^2$

2.) Finn Fitness has an entrance to the locker room from both the dance studio and the weight room. What is the **total area** of Finn Fitness?

WR
$A = b \cdot h$
$A = 28 \cdot 30$
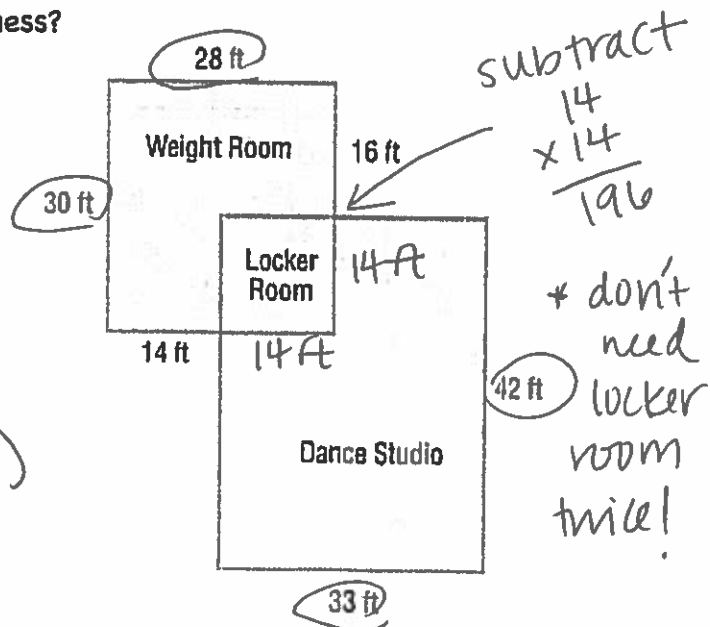$A = 840 \, ft^2$

DS
$A = b \cdot h$
$A = 33 \cdot 42$
$A = 1386 \, ft^2$

$840 + 1386 = 2226 \, ft^2$
WR   DS   (both rooms)

$2226 - 196 =$

$\boxed{2030 \, ft^2}$

subtract
14
× 14
196

* don't need locker room twice!

Partner talk
Find the area of the figure.

$A = b \cdot h$
$A = 7 \cdot 5$
$A = 35 \ cm^2$

$A = \frac{1}{2} \cdot b \cdot h$
$A = \frac{1}{2} \cdot 5 \cdot 2$
$A = 5 \ cm^2$
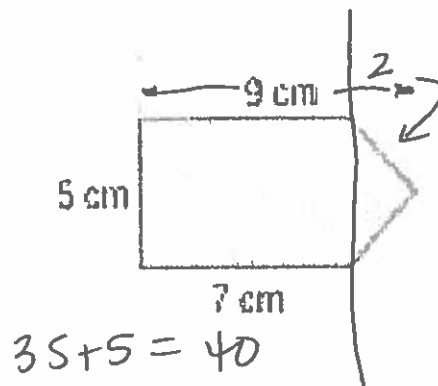
9 cm
2
5 cm
7 cm
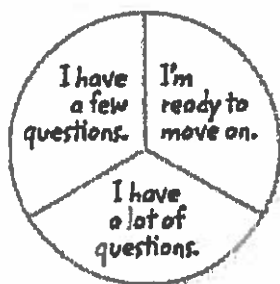$35 + 5 = 40$

Total Area = $40 \ cm^2$

Building on the Essential Question – How can you decompose figures to find area?

#1 "cut" the figures into triangles, parallelograms, and trapezoids.

#2 Find the area of each shape.

#3 Add the individual shape areas together.

Rate Yourself – Are you ready to move on? Shade the section that applies.

I have a few questions.
I'm ready to move on.
I have a lot of questions.

← Rate yourself!