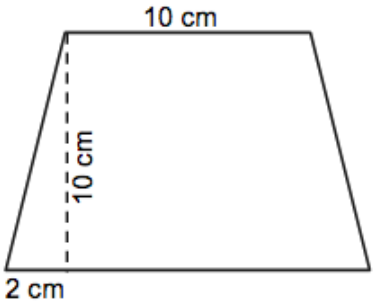
Solve for the area of a trapezoid by decomposing it into rectangles and triangles, Practice Set C

Name:

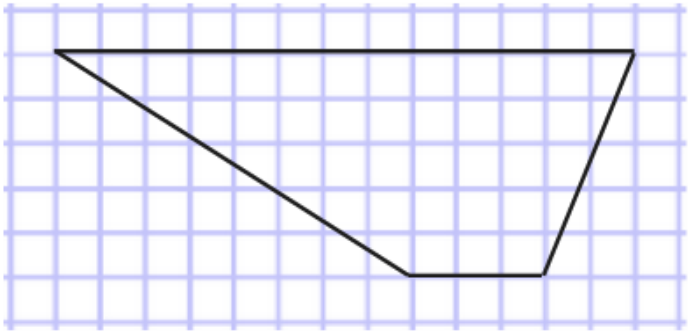
Date:

1. What is the area of the trapezoid?



   a. 100 square cm
   b. 120 square cm
   c. 110 square cm
   d. It is not possible to determine the area of the trapezoid

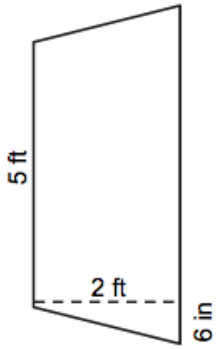
2. What is the area of the trapezoid?



   a. 40 square units
   b. 38 square units
   c. 36 square units
   d. 42 square units

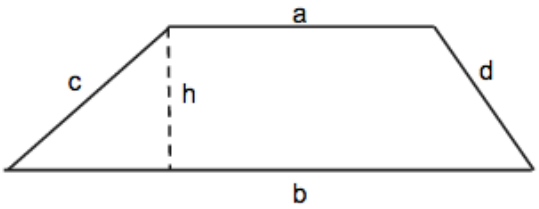
3. Greg is constructing a bay window in his living room. He wants to purchase a

cushion put on seat in the bay window. How much area will his cushion cover?



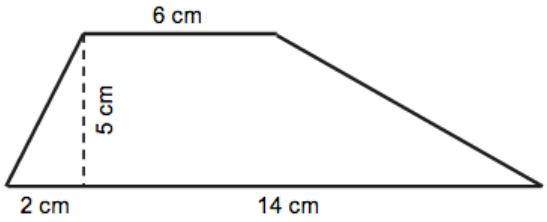
a. 11 square feet
b. 10 square feet
c. 9 square feet
d. 12 square feet

4. The formula used to solve for the area of trapezoids is below.



$$A = \frac{a+b}{2}h$$

Apply the area formula to solve for the area of the trapezoid. Show your work. Check your work by decomposing the trapezoid into triangles and a rectangle.



Apply the Formula:

Decompose the Trapezoid:

The trapezoid has an area of _____ square cm.

Solve for the area of a trapezoid by decomposing it into rectangles and triangles, Practice Set C

Answer Key

Name:

Date:

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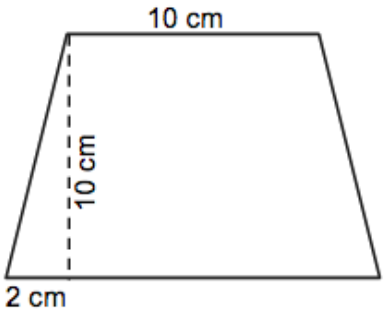

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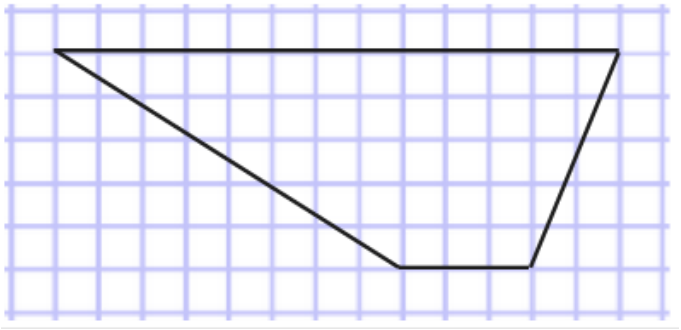

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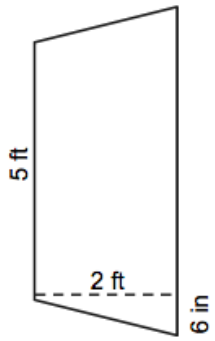

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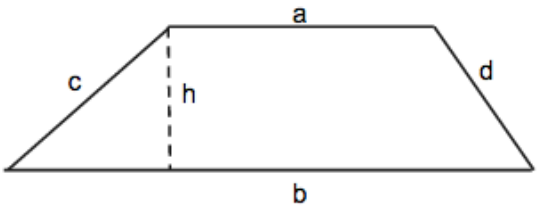

$$A = \frac{a+b}{2}h$$

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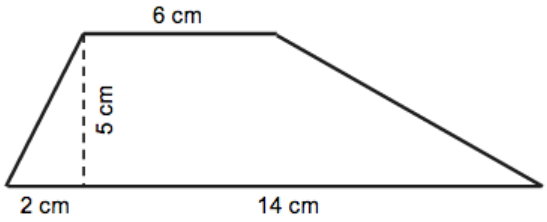


Apply the Formula:

$$A = \frac{a+b}{2}h$$

a= 6, b= 16, h= 5

a + b = 22

22/2 = 11

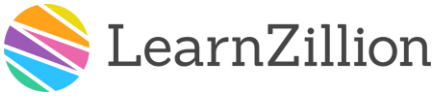
11 x 5 = 55

A = 55 square cm.

Decompose the Trapezoid:

The trapezoid can be decomposed into two right triangles and a rectangle. The area of the smaller right triangle would be 5 square units ((2x5)/2). The area of the larger right triangle would be 20 square units ((8x5)/2). To find the area of the rectangle, multiply the length and width (6x5). The area of the rectangle is 30 square units. To find the area of the trapezoid, add together the areas of the triangles and rectangle (5+20+30). The area of the trapezoid is 55 square units.

The trapezoid has an area of ____55_____ square cm.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