In this first task you will find the area of a Hipped Roof, and a Mansard Roof. To start, we will make sure you can apply the new formula for a trapezoid:

$$A\_{trap}=(a+b)×h÷2$$

1) Find the areas of these two trapezoids: ➁ each.

a) b)

2) Find the area of this “Mansard Roof” by using the table set up by Mr. Smith: ➄

|  |
| --- |
| Visual of Roof: |
| Area of Rectangle Portion (calculations) | Area of Trapezoid Portion (calculations) |
|  |  |
| Area = | Area = |
| Total Area (top + 4 trapezoids)= |

3) Find the area of this “Hipped Roof” using the provided table. ➄

|  |
| --- |
| Visual of Roof: |
| Area of Triangle Portion (calculations) | Area of Trapezoid Portion (calculations) |
|  |  |
| Area = | Area = |
| Total Area (2 triangles + 2 trapezoids) = |

4) Calculate the **area** of these two irregular shapes. ➄ each.

a) b)

5) You decide to put up carpet down in your living room. A diagram of your living room is given at the right.

Determine the **area** of your
living room. ➃

BONUS:



Hint: Use the Pythagorean Theorem to find the dimensions of the small square!