REMEMBER

Write one of the vocabulary words from the word bank that best replaces the given word(s).

Have you ever noticed how the tiles on a floor are arranged?

These square tiles are usually arranged in an ……
(row arrangement)

where each row has the same number of tiles.

You can use …… to find the total number of tiles
(repeated addition)

on the floor. The total number of squares that cover any surface is

called the …….
(square space)

Word Bank

Area

Array

Multiplication

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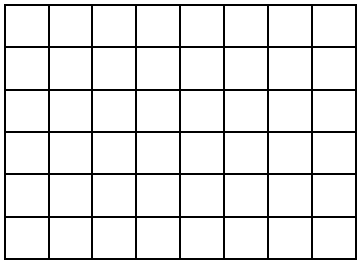
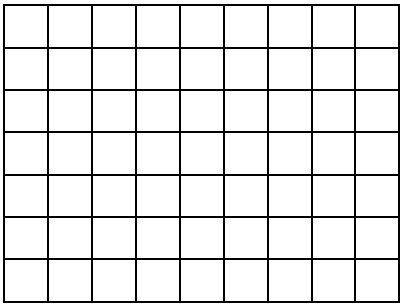
UNDERSTAND

Answer the following questions to check for understanding.

1 Rectangles A and B are covered in 1 square-foot square tiles?

What is the area of each rectangle in square feet?

Rectangle A	Rectangle B
	
Area of A = ...	Area of B = ...

2 What is the total area of rectangle A and B?

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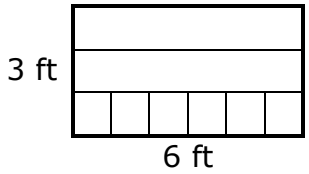
APPLY

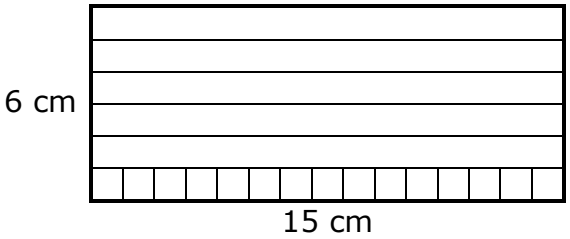
Read the directions to apply your mathematical knowledge into skills.

Find the area of each figure.

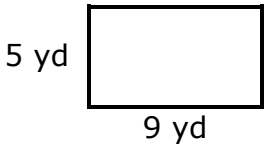
1



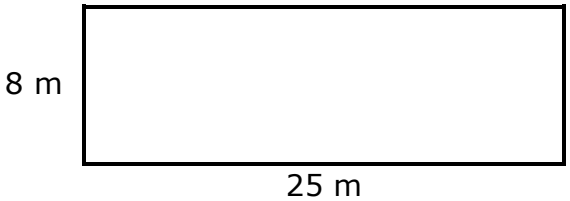
2



3

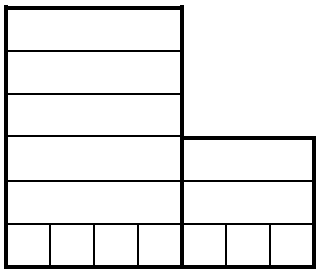


4

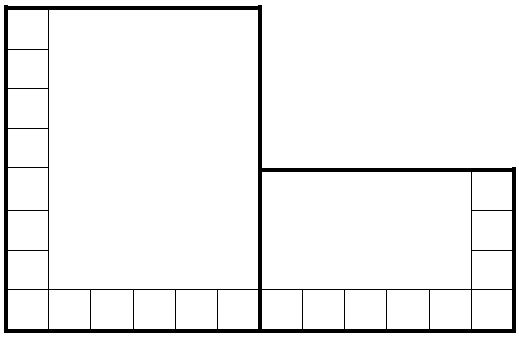


ADVANCED Find the total area of each figure.

A1



A2



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ANALYZE

Analyze each problem to determine the best strategies to solve it.

1 A kitchen floor has square tiles modeled by the rectangle below. The bottom row has 1-foot square tiles. The rest of the kitchen floor will also have square tiles of the same size.

What is the area this kitchen floor in square feet?

A 17 square feet

B 34 square feet

C 64 square feet

D 72 square feet

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2 The high school pep squad made a banner for a football game shown in the model below.

What is the area of this banner in square feet?

A 21 square feet

B 34 square feet

C 42 square feet

D 54 square feet

3 A hallway of a school has 5 rows of tiles with 15 tiles in each row. The area of each tile is 1 square foot.

What is the area of this hallway in square feet?

A 20 square feet

B 35 square feet

C 55 square feet

D 75 square feet

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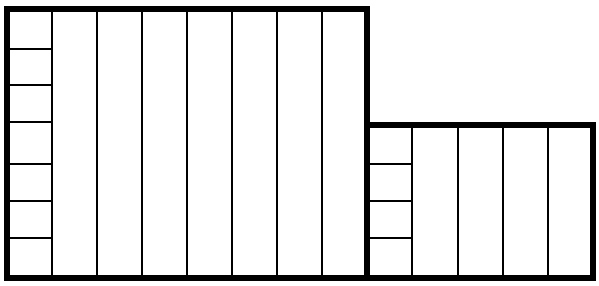
ADVANCED

A1 A rectangular room and closet are modeled below. Each square represents 1 square foot.



What is the total area of the room and closest in square feet?

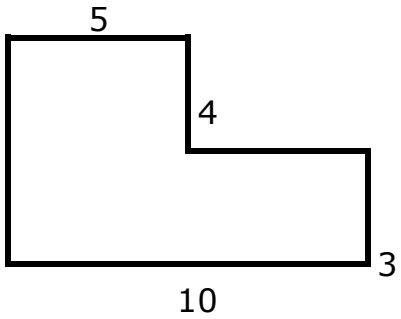
A 76 square feet

B 36 square feet

C 84 square feet

D 56 square feet

A2 Hilda drew the figure below.



What is the total area of the figure in square units?

A 22

B 34

C 50

D 62

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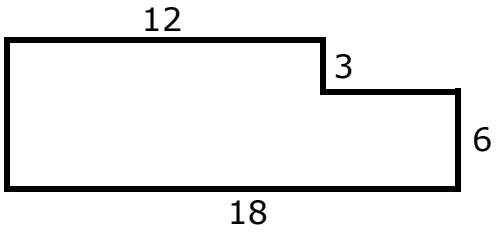
A3 Hilda drew the figure below.



What is the total area of the figure in square units?

A 39

B 54

C 126

D 144

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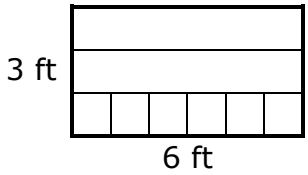
EVALUATE

Identify and explain each student's error.

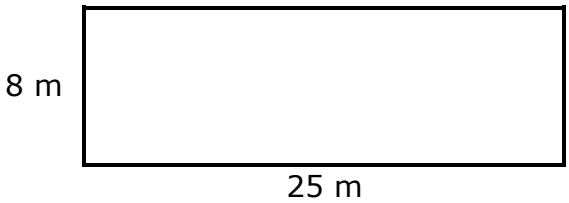
Student 1



Area = 3 + 6 = 9 square feet

Error:

Student 2



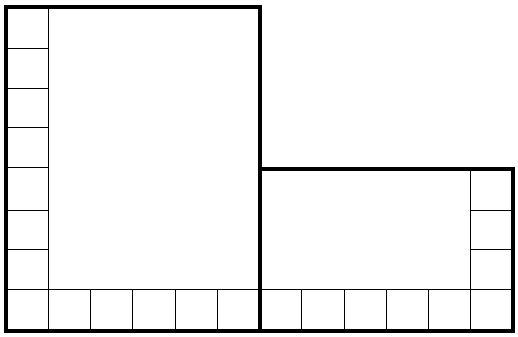
$$\begin{array}{r} 4 \\ 2\ 5 \\ \times\quad 8 \\ \hline 8\ 0 \end{array}$$

Area = 80 square meters

Error:

ADVANCED

Student A1



$$\begin{array}{r} 1 \\ 1\ 2 \\ \times\quad 8 \\ \hline 9\ 6 \end{array}$$

Area = 96 square meters

Error:

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CREATE

Use your knowledge and skills to perform the task.

Architects are people that design building, such as houses, skyscrapers, warehouses, etc. Blueprints are the drawings of a building's layout. The blueprints show what the building looks like and the length of each wall in the building.

Building contractors use the measurements on the blueprints to determine how much of what materials are needed to build a building and how much they will cost for the buyer of the building.

Imagine that you are the builder and have received the blueprint on the following page from an architect. Determine the cost of the floors in this building based on the information from the buyer.

1. Find the area of each room.

2. Determine the floor's cost in each room based on the cost of materials below.

    a. Wood floors cost $6 per square foot.
    b. Tile floors cost $9 per square foot.
    c. Carpet costs $3

3. Find the total cost of the floor of this building.

USING BLUEPRINTS

Room	Floor Material	Area (sq. ft)	Cost per sq. ft	Total Cost
1				
2				
3				
4				
			Total Cost of Floor Materials:	

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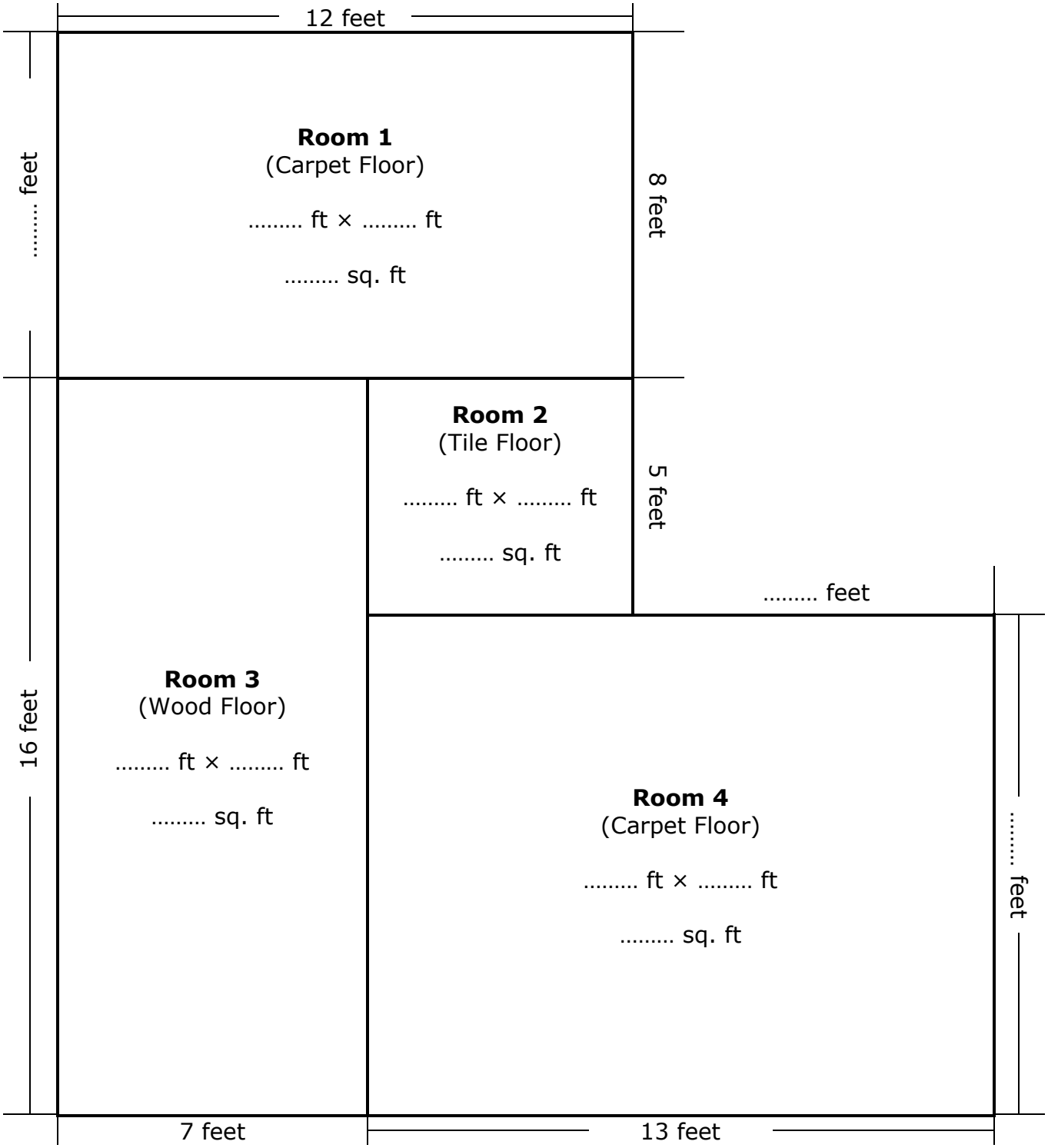

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