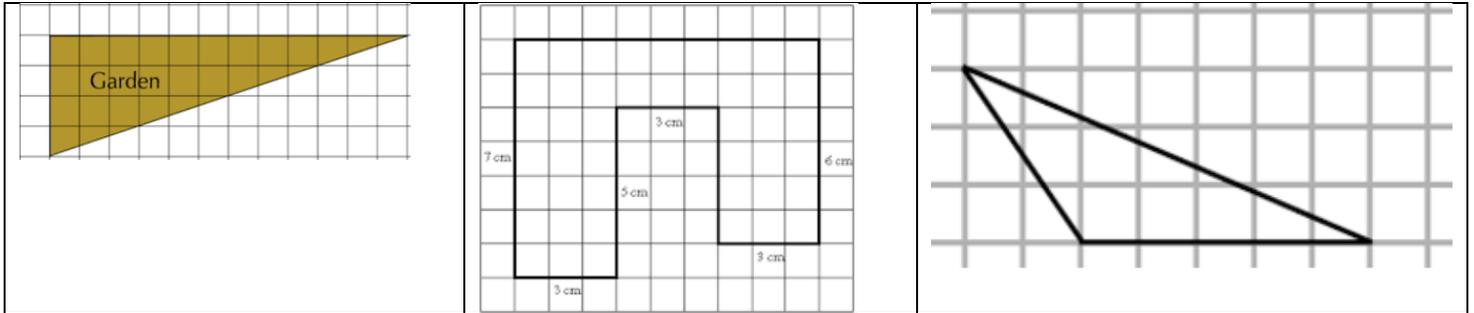
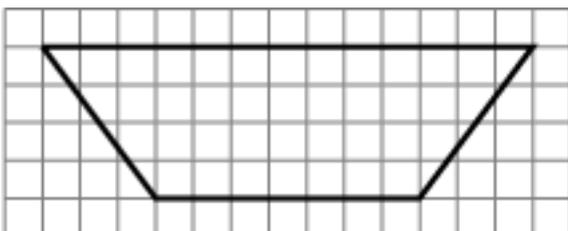


1. Find the area for each figure:



2. Elias and his dad are painting a wall in their basement. The wall is 18 feet long and 9 feet tall. They are trying to figure out how much paint to buy. What is the area that they need to cover?

3. Ms. Hathaway is an architect. Her client has requested a trapezoidal balcony with the dimensions of the figure below (1 unit = 1 foot). Ms. Hathaway needs to calculate the area of the balcony to figure out exactly how much material to order. Find the area of Ms. Hathaway's balcony.

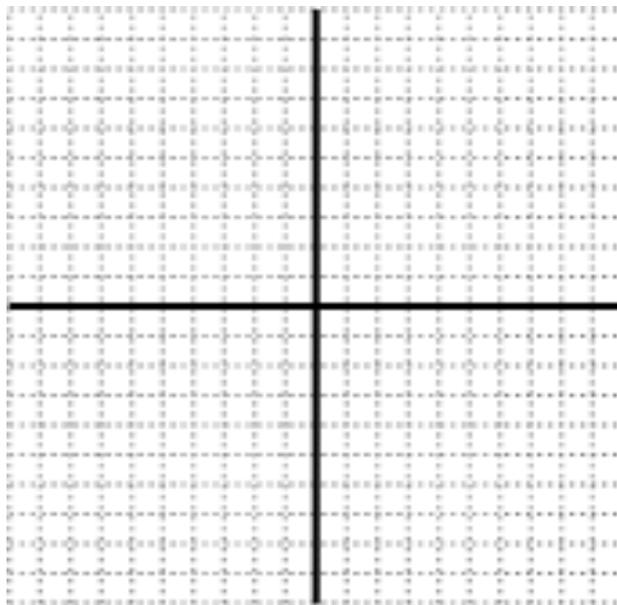


4. On a map, the theater is located at $(-4, -4)$, the courthouse is located at $(2, 9)$, and the train station is located at $(2, -4)$. Represent the locations as points on a coordinate grid with a unit of 1 km.

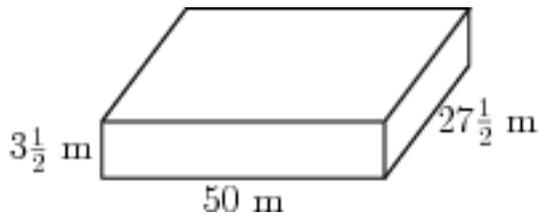
(a) What is the distance from the train station to the courthouse? _____

(b) What shape does connecting the three locations form? _____

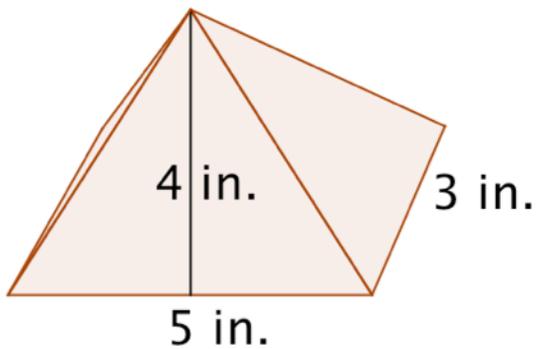
(c) The mayor is planning on constructing a public plaza in this area. What is the area of the planned plaza? _____



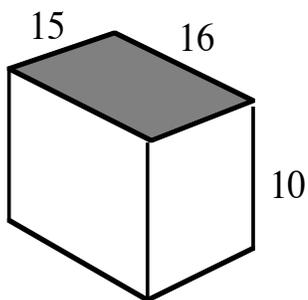
5. The pool at the London Aquatics Center has the dimensions of the figure below. The pool is drained and refilled every night. What volume of water would be required to fill the pool to the rim?



6. The figure below is a square pyramid. Create a net and use the net to find the surface area of the pyramid.



7. Find the surface area and volume. The measurements are in meters.



8. Volume and Cubes

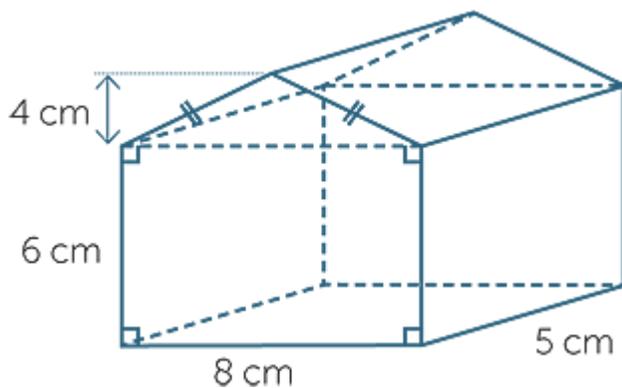


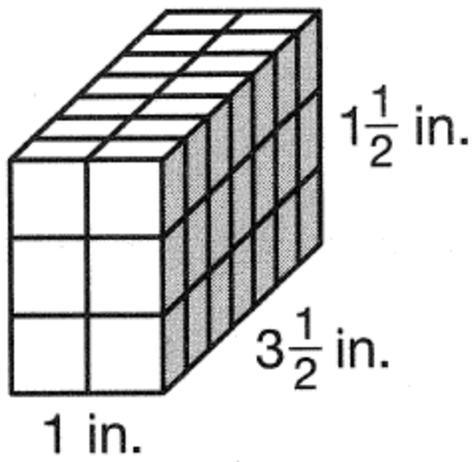
Domino produces boxes that are 6 in. by 2 in. by 9 in. The sugar cubes used to fill the box are 1 inch on each side.

a. How many sugar cubes would it take to fill the Domino box?

b. If Domino decided to decrease the size of the sugar cubes and make them $\frac{1}{2}$ in. on all sides, how many $\frac{1}{2}$ in. sugar cubes would it take to fill the Domino box?

Challenge. Find the volume:





Use the rectangular prism above to answer questions 1-3.

1. How many cubes are there in the rectangular prism?

2. What is volume of each cube?

3. What is the volume of the rectangular prism?