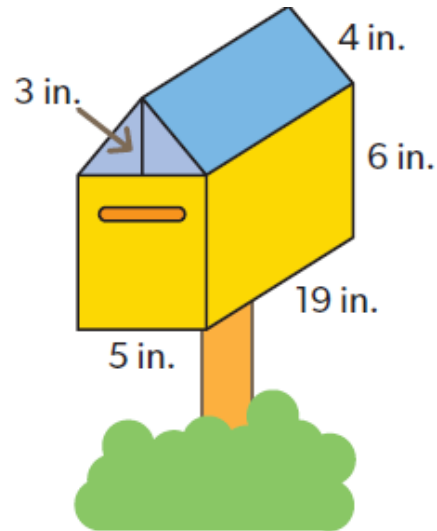


Surface Area and Volume of Composite Solids Tiers B/C

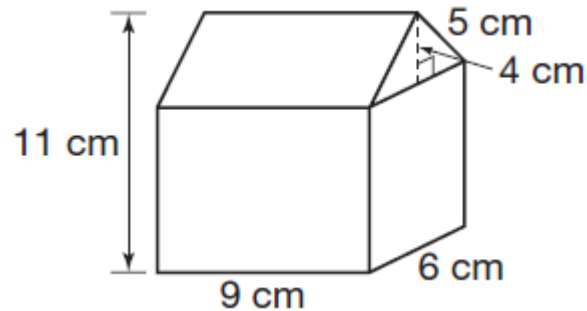
1)



Oliver built a mailbox and wants to know exactly how much it can hold. What is the total volume of the mailbox?

| | |
|--|--|
| Volume of triangular prism $V = Bh = \frac{1}{2}(bh)h$ | |
| Volume of a rectangular prism $V = Bh = (l \times w)h$ | |
| Total Volume of the birdhouse: $V = \frac{1}{2}(bh)h + (l \times w)h$ | |

- 2). Students in an art class are using wooden blocks to create a model of a neighborhood. They will paint each block to make a model of a building. The model is shown below. How many square centimeters of the surface will they paint (including the bottom).



(remember you are finding the area of 9 faces. There are 2 triangles and 7 rectangles) You only count exposed faces, those on the exterior including the bottom.

Rectangle 1 _____

Triangle 1 _____

Rectangle 2 _____

Triangle 2 _____

Rectangle 3 _____

Rectangle 4 _____

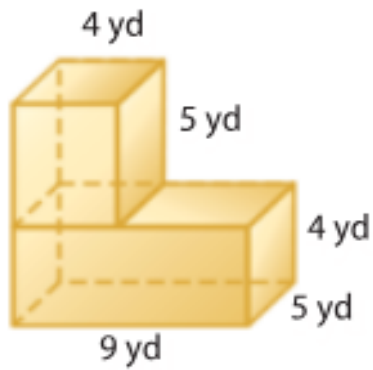
Total surface area: _____

Rectangle 5 _____

Rectangle 6 _____

Rectangle 7 _____

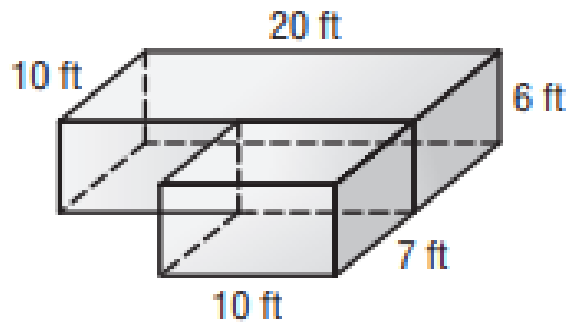
3) Find the volume of the solid below.



(remember you are adding the volume of two rectangular prisms together. The formula for each is length x width x height)

| | |
|---|--|
| Volume of a rectangular prism $V = Bh = (l \times w)h$ | |
| Volume of a rectangular prism $V = Bh = (l \times w)h$ | |
| Total Volume of the joined boxes: | |

4).

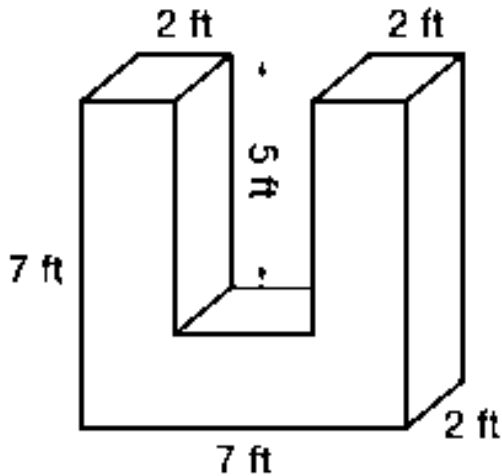


Find the volume of the solid above.

** (remember you are adding the volume of two rectangular prisms together. The formula for each is length x width x height)

| | |
|---|--|
| Volume of a rectangular prism $V = Bh = (l \times w)h$ | |
| Volume of a rectangular prism $V = Bh = (l \times w)h$ | |
| Total Volume of the joined boxes: | |

5) **CHALLENGE** – try it!! If you get it – counts for 2 points for your Boot Camp group.



Mr. Jamison bought an entertainment center shown on the left. What is the volume of his new entertainment center? (HINT: Divide the figure up, but there is only one correct answer.)

| | |
|---|--|
| Volume of a rectangular prism $V = Bh = (l \times w)h$ | |
| Volume of a rectangular prism $V = Bh = (l \times w)h$ | |
| Volume of a rectangular prism $V = Bh = (l \times w)h$ | |
| Total Volume of the joined boxes: | |