

# In-Class Geometry (Part 2) Test Review

You may find the following formulas helpful:

Area of a Square or Rectangle:  $A = lw$  or  $A = bh$

Area of a Triangle:  $A = \frac{bh}{2}$  or  $A = 0.5bh$

Volume of Rectangular Prism:  $V = lwh$

Volume of Triangular Prism:  $V = \frac{lw}{2}h$

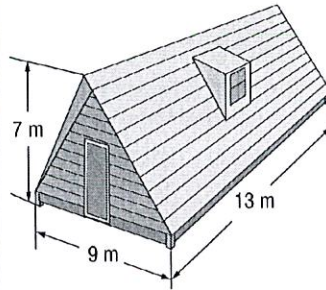
1. Geneva's younger brother has a toy box that is 3.6 feet long, 2.4 feet wide, and 1.5 feet high. What is the volume of the toy box? Show your work. Include a label with your answer.

$$12.96 \text{ ft}^3$$

$$3.6 \times 2.4 \times 1.5$$

Volume = 12.96 ft<sup>3</sup>

2. An A-frame cabin is built in the shape of a triangular prism, as shown. The front wall of the cabin has a length of 9 meters and a height of 7 meters. The cabin is 13 meters deep. Find the volume of the cabin. Show your work. Include a label with your answer.

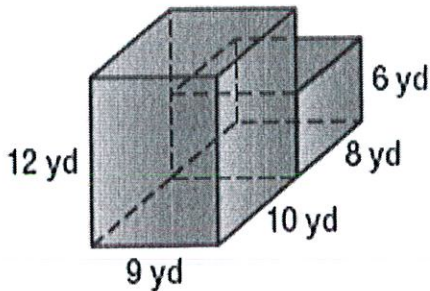


$$\frac{9 \times 7 \times 13}{2}$$

$$\frac{819}{2}$$

Volume = 409.5 ft<sup>3</sup>

3. Find the volume of the composite figure. Show your work. Include a label with your answer.



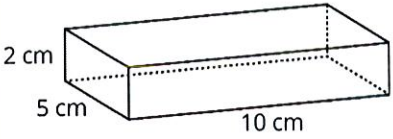
$$(12 \times 9 \times 10) + (8 \times 6 \times 9)$$

$$(1080) + (432)$$

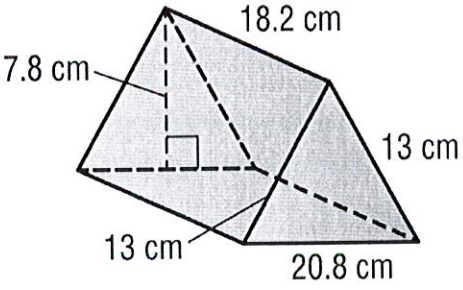
$$1512$$

Total Volume: 1512 yd<sup>3</sup>

4. Complete the F-A-T table to calculate the surface area of each geometric solid. Show all work. Include units of measurement with your answers.

SOLID	FACES	AREA	TOTAL
	front & back	$10 \times 2$ $10 \times 2$	40
	top & bottom	$10 \times 5$ $10 \times 5$	100
	sides	$5 \times 2$ $5 \times 2$	20

TOTAL SURFACE AREA: 160 cm<sup>2</sup>

SOLID	FACES	AREA	TOTAL
	Triangles (front & back)	$\left( \frac{20.8 \times 7.8}{2} \right) \times 2$	162.24
	Rectangle 1 (bottom)	$18.2 \times 20.8$	378.56
	Rectangle 2 Rectangle 3 (sides)	$18.2 \times 13$ $18.2 \times 13$	236.6 236.6

TOTAL SURFACE AREA: 1014 cm<sup>2</sup>