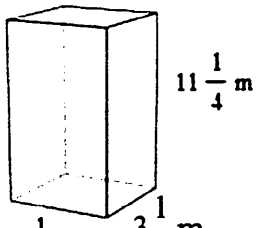
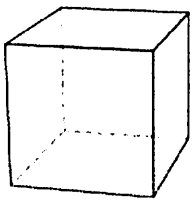
Volume and Surface Area Practice Name _____

1. Find the Volume of a Cube with edge length $1\frac{2}{3}$ cm as a fraction in simplest form.

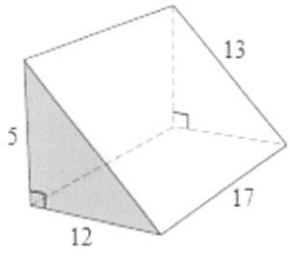
2. Find the Volume of the Rectangular Prism as a fraction in simplest form.

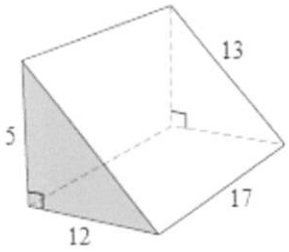
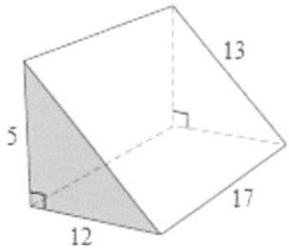
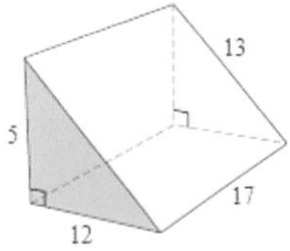
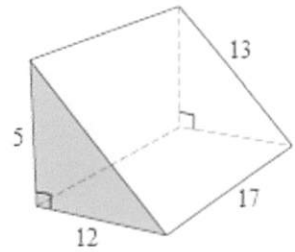


3. Find the Surface Area of the Cube.



4. Find the Surface Area of the Triangular Prism.



Triangle Bases ×2	**Bottom Rectangle**
	
Back Rectangle	**Front Rectangle**
	

Total Surface Area = _____

Volume and Surface Area Practice Name Key

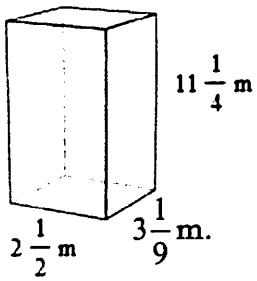
1. Find the Volume of a Cube with edge length $1\frac{2}{3}$ cm as a fraction in simplest form.

All edge lengths = $1\frac{2}{3}$ cm

$V = L \cdot W \cdot H$ $V = 1\frac{2}{3} \cdot 1\frac{2}{3} \cdot 1\frac{2}{3}$

$V = \frac{5}{3} \cdot \frac{5}{3} \cdot \frac{5}{3} = \frac{125}{27} = \boxed{4\frac{17}{27}\ cm^3}$

2. Find the Volume of the Rectangular Prism as a fraction in simplest form.

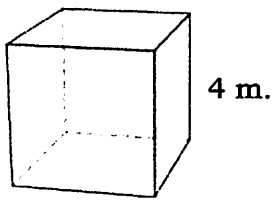


$V = L \cdot W \cdot H$

$V = 2\frac{1}{2} \cdot 3\frac{1}{9} \cdot 11\frac{1}{4}$

$V = \frac{5}{2} \cdot \frac{\cancel{28}^{7}}{\cancel{9}_{1}} \cdot \frac{\cancel{45}^{5}}{\cancel{4}_{1}} = \frac{175}{2} = \boxed{87\frac{1}{2}\ m^3}$

3. Find the Surface Area of the Cube.



6 squares

$A = 6 \cdot h$

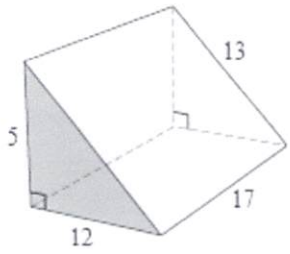
$A = 4 \cdot 4$

$A = 16\ m^2$

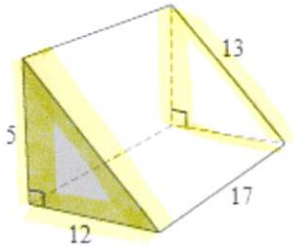
x 6 squares

$\boxed{\text{Surface Area} = 96\ m^2}$

4. Find the Surface Area of the Triangular Prism.



Triangle Bases ×2



$A = \frac{b \cdot h}{2}$

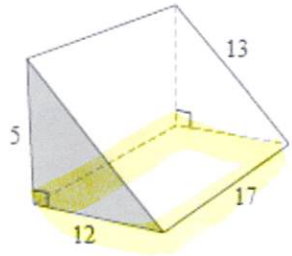
$A = \frac{12 \cdot 5}{2}$

$A = 30 \text{ units}^2$

$\times 2$

$\Delta \text{Bases} = 60 \text{ units}^2$

Bottom Rectangle

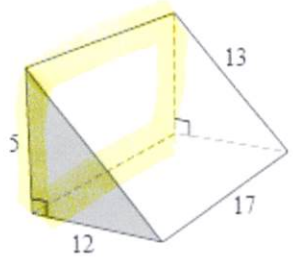


$A = b \cdot h$

$A = 12 \cdot 17$

$A = 204 \text{ units}^2$

Back Rectangle

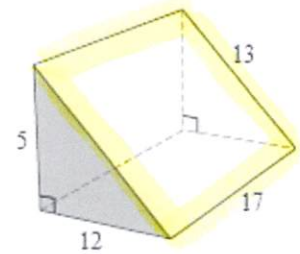


$A = b \cdot h$

$A = 17 \cdot 5$

$A = 85 \text{ units}^2$

Front Rectangle



$A = b \cdot h$

$A = 17 \cdot 13$

$A = 221 \text{ units}^2$

+ up Areas

Total Surface Area = 570 units^2