Unit 5 - Vocabulary

Term	Definition and/or Picture-Example
Area	
Base (of a triangle)	
Base (of a 3D figure)	
Congruent	
Cubic Units	
Edge	
Equilateral Triangle	

Term	Definition and/or Picture-Example
Face	
Isosceles Triangle	
Lateral Faces	
Net	
Parallel	
Parallelogram	
Perpendicular	

Term	Definition and/or Picture-Example
Polygon	
Regular Polygon	
Polyhedron	
Prism	
Pyramid	
Quadrilateral	
Rectangle	
Rectangular Prism	

Term	Definition and/or Picture-Example
Rhombus	
Right Triangle	
Scalene Triangle	
Square	
Surface Area	
Trapezoid	
Vertex (vertices)	
Volume	

Surface Area in the Real World

Solve each of the problems by drawing a net and finding the surface area.

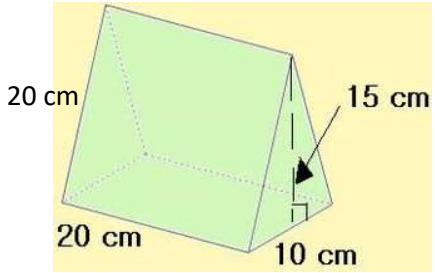
1) A pizza box is 15 inches wide, 14 inches long, and 2 inches tall. How many square inches of cardboard were used to create the box?

2) What is the surface area of a Rubik's Cube that is 6 cm tall?

3) Angelo is making a replica of an Egyptian pyramid. He is making a square pyramid with a base that is 3 feet long and 3 feet wide. The triangular sides of the pyramid each have a height of 14 feet. How much material will Angelo need to cover the pyramid?

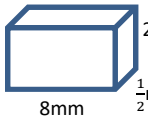
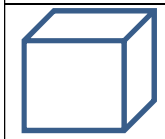
4) Sydney is painting a rectangular toy box for her little brother. She will paint all 4 sides and the top (she will NOT paint the bottom). If the toy box is 20 inches tall, 12 inches wide, and 25 inches long, how many square inches will she need to paint?

5) DeAndre is making a tent for his hamster. It is 20 cm long, and the triangular bases are 15 cm high and 10 cm wide (see picture below). How much material will he need to make the tent?



Volume Error Analysis

Sally is a silly little girl that makes silly mistakes! Analyze her work in Column #1, and *circle her mistake*. In Column #2, explain what she did wrong. In Column #3, show how Silly Sally should work out the problem. Show ALL work!

Silly Sally's Work (Circle her mistake):	What did Silly Sally do wrong?	Show Silly Sally how it's done! (Show ALL steps!)
 4m V = l w h V = 4 • 4 • 4 V= 12 m^3		
 2mm, 8mm, $\frac{1}{2}$mm V = l w h V = 8 • ½ • 2 V = 4 • 2 V = 8mm^2		
 Cube = 2/3 in. tall V = l w h V = $\frac{2}{3} \cdot \frac{2}{3} \cdot \frac{2}{3}$ V = $\frac{6}{9} = \frac{2}{3}$ in^3		
 8 ¼ yd, 2 ½ yd, 3 yd V = l w h V = 8 ¼ • 2 ½ • 3 V = 16 $\frac{1}{8}$ • 3 V = 48 $\frac{1}{8}$ yd^3		
 $8\frac{1}{4}$ yd, $1\frac{1}{2}$ yd, 2 yd V = l w h V = 4 ½ • 1 ½ • 2 V = $\frac{8}{2}$ • $\frac{3}{2}$ • 2 V = $\frac{24}{4}$ • 2 V = 12 yd^3		

More Volume Practice

Determine the Volume of each rectangular prism or cube below. Include units and show your work!

1. A cube that is 12 yards wide

2. The box with dimensions of 6 ft • 4 ft • 1 ½ ft

3. Determine the Volume of a rectangular truck bed that is 12 feet long, 5 ¼ feet wide, and 3 feet deep.

4. How much water can be poured into a cubic tank that is 2 ½ feet long?

5. What is the volume of a gift box that is 3 ½ inches wide, 2 inches tall, and 6 inches long?