MATH 10 – UNIT 1 – LESSON 6 – SURFACE AREA REVIEW
MEASUREMENT UNIT

Name: _____

Area Formula:

Area of a Square: $A = s^2$

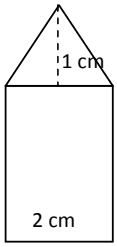
Area of a Triangle: $A = \frac{1}{2}bh$ or $A = \frac{bh}{2}$

Area of a Rectangle: $A = bh$

Area of a Circle: $A = \pi r^2$

Warm up! Find the area of the following shapes.

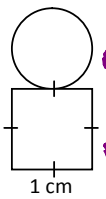
1. Composite shape



$A = \frac{bh}{2} = \frac{2 \cdot 1}{2} = 1 cm^2$

$A = bh = 2 \times 5 = 10 cm^2$

2. Composite shape



$A = \pi r^2 = 0.79 cm^2$

$A = s^2 = 1^2 = 1 cm^2$

*use π on your calc not 3.14!

Area of triangle: $1 cm^2$

Area of rectangle: $10 cm^2$

Total Area: $11 cm^2$

Area of circle: $0.79 cm^2$

Area of square: $1 cm^2$

Total Area: $1.79 cm^2$

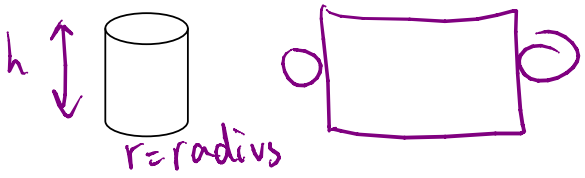
Surface Area: Total area of all shapes that make up an object.

Nets of 3-D Objects: The pattern used to form a 3-D object.
Imagine a cereal box that you take apart; flatten.

Let's draw the nets and identify the formula we can use to calculate the surface area for each shape.

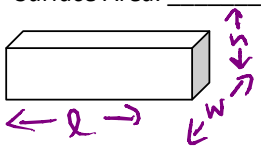
Shape : cylinder

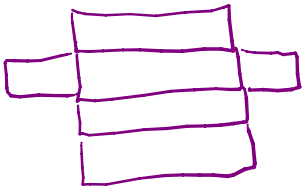
Surface Area: $SA = 2\pi r(r + h)$



Shape : rectangular prism

Surface Area: $SA = 2(lw + lh + wh)$





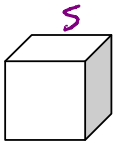
MATH 10 – UNIT 1 – LESSON 5 – SURFACE AREA REVIEW

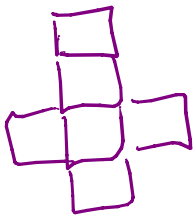
MEASUREMENT UNIT

Name: Key

Shape : cube

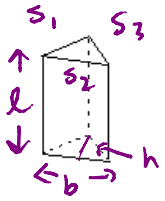
Surface Area: $SA = 6s^2$

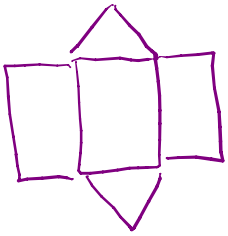




Shape : triangular prism

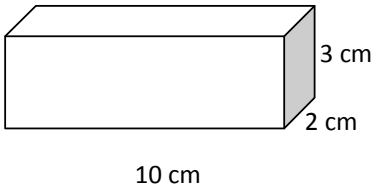
Surface Area: $SA = bh + l(s_1 + s_2 + s_3)$





Example: Find the surface area of the rectangular prism displayed below.

Formula: $SA = 2(lw + lh + wh)$



$l = 10$

$w = 2$

$h = 3$

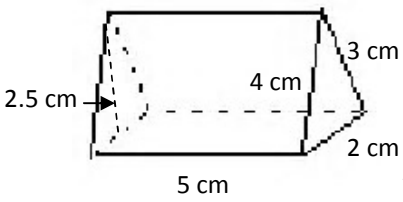
$SA = 2(10 \cdot 2 + 10 \cdot 3 + 2 \cdot 3)$

$= 112$

Area: $112\ cm^2$

Example: Find the surface area of the triangular prism displayed below.

Formula: $SA = bh + l(s_1 + s_2 + s_3)$



Area: $50\ cm^2$

$b = 2$

$h = 2.5$

$s_1 = 4$

$s_2 = 3$

$s_3 = 2$

$l = 5$

$SA = 2 \cdot 2.5 + 5(4 + 3 + 2)$

$= 50\ cm^2$

Lesson 6 Homework: WS 10-1-6 "Surface Area Review"