

**NOVEMBER 30, 2015**

**UNIT 3: SQUARE ROOTS AND  
SURFACE AREA**

**TEST PREPARATION**  
**(Test: Wed., Dec. 2, 2015)**

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***MATH 9***



## **WHAT'S THE POINT OF TODAY'S LESSON?**

**We will continue working on the Math 9 Specific Curriculum Outcome (SCO) "Shape and Space 2" OR "SS2" which states:**

**SS2: "Determine the surface area of composite 3-D objects to solve problems."**



## What does **THAT** mean???

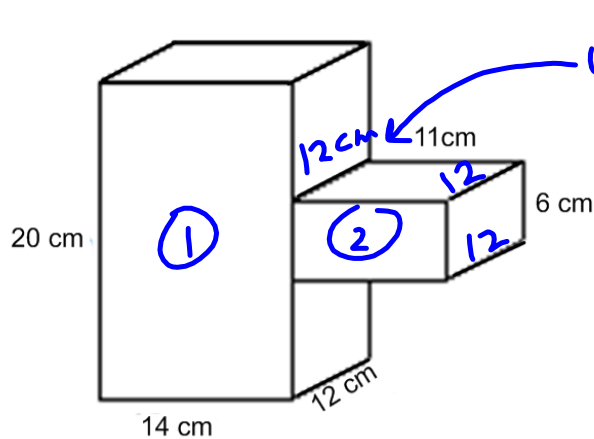
**SCO SS2** means that we will stack two or more 3-D objects (right rectangular prisms, right triangular prisms, right cylinders) on top of each other. We will find the area of each face (side) of each object then add them all up to find the total surface area of the object. We will also have to subtract any overlapping sides from the total.



**You only need to remember 6 formulas in the surface area section of this unit which you already knew before grade 9:**

- 1. Area of a rectangle/square:  $bh$**
- 2. Area of a triangle:  $\frac{bh}{2}$**
- 3. Area of a circle:  $\pi r^2$**
- 4. Circumference of a circle:  $2\pi r$  OR  $\pi d$**
- 5. The Pythagorean Theorem:  $a^2 + b^2 = c^2$**
- 6. Surface Area of a Cylinder:  $2\pi r^2 + 2\pi rh$**

Calculate the surface area of the following composite object. Please show **ALL WORK**.



$$1772 \text{ cm}^2$$

$$\begin{aligned}
 SA &= \textcircled{1} + \textcircled{2} \\
 &= (T/B + F/B + L/R) + (T/B + F/B) \\
 &= (2bh + 2bh + 2bh) + (2bh + 2bh) \\
 &= [2(14)(12) + 2(14)(20) + 2(12)(20)] + \\
 &\quad [2(11)(12) + 2(11)(6)] \\
 &= (336 + 560 + 480) + (264 + 132) \\
 &= 1376 + 396 \\
 &= 1772 \text{ cm}^2
 \end{aligned}$$

**TEST PREPARATION:**

**(Test Date: Wednesday, December 2, 2015)**

***MMS9***

**PAGE 12: #14**

**PAGE 18: #4 and 5**

**PAGE 21: #9**

**PAGE 31: #10**

**PAGE 40: #3a**

**PAGE 45: #3, 4, 5 and 6**

**PAGE 46: #15 and 16**

**as well as the extra practice sheet (especially #1, #2 and #6).**

**(You should spend 30 min. per day on this AFTER CLASS between now and Wednesday.)**