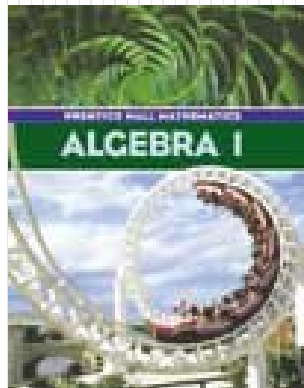


Mr. Northcutt's Math Classes Class Presentation

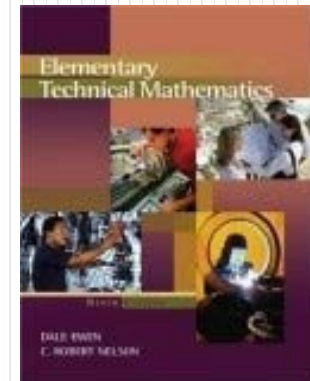
February 6, 2009 (98)



Math 1



Math 2



Applied Math



Math 1 – Daily Summary

- **Announcements**
 - Chapter 5 Test on Thursday, February 12th.
 - Early Release on Wednesday, February 11th.
- **Class Objectives – *What you should learn today!***
 - Understand “Direct Variation” (in Functions & Graphs)
- **Assignment**
 - **Section 5-5: 2-20 EVEN, 22, 23**



Review

- Solve for the indicated variable...

$$nq = m ; q$$

$$ax + by = 0 ; y$$

- Solve each proportion...

$$\frac{5}{8} = \frac{x}{12}$$

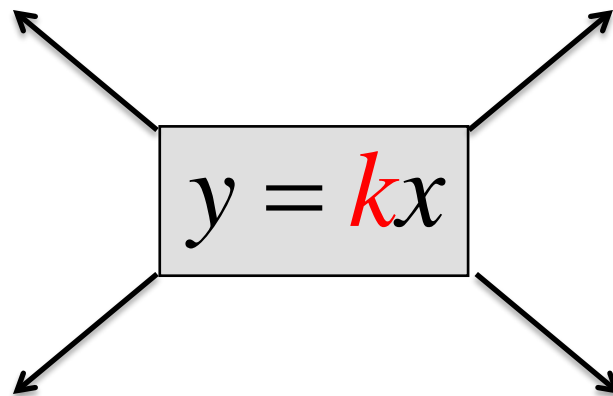
$$\frac{8}{d} = \frac{20}{36}$$

Rate of Change (Constant of Variation)

- Graph the following functions...on whiteboard.

$$y(x) = 1 \cdot x$$

$$f(t) = 2 \cdot t$$



$$H(c) = \frac{2}{7} \cdot c$$

$$p(z) = \frac{-1}{3} \cdot z$$



Is an Equation a Direct Variation...

- If Direct Variation, its graph is a line with slope k ...can it be written as $y = kx$?

$$5x + 2y = 0$$

$$5x + 2y = 9$$

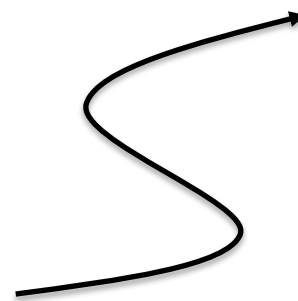
Write an Equation Given a Point (x,y)



- If you know the equation is a Direct Variation and you are given a point (x, y), you can find the Constant of Variation (**k**) and then write the equation.

$$(4, -3)$$

Since the point (4,-3) must lie on the graph of the equation - it is a solution to the equation.



$$y = k \cdot x$$

$$-3 = k \cdot (4)$$

$$\frac{-3}{4} = k$$



$$y = \frac{-3}{4} \cdot x = -\frac{3}{4}x$$



Math 2 – Daily Summary

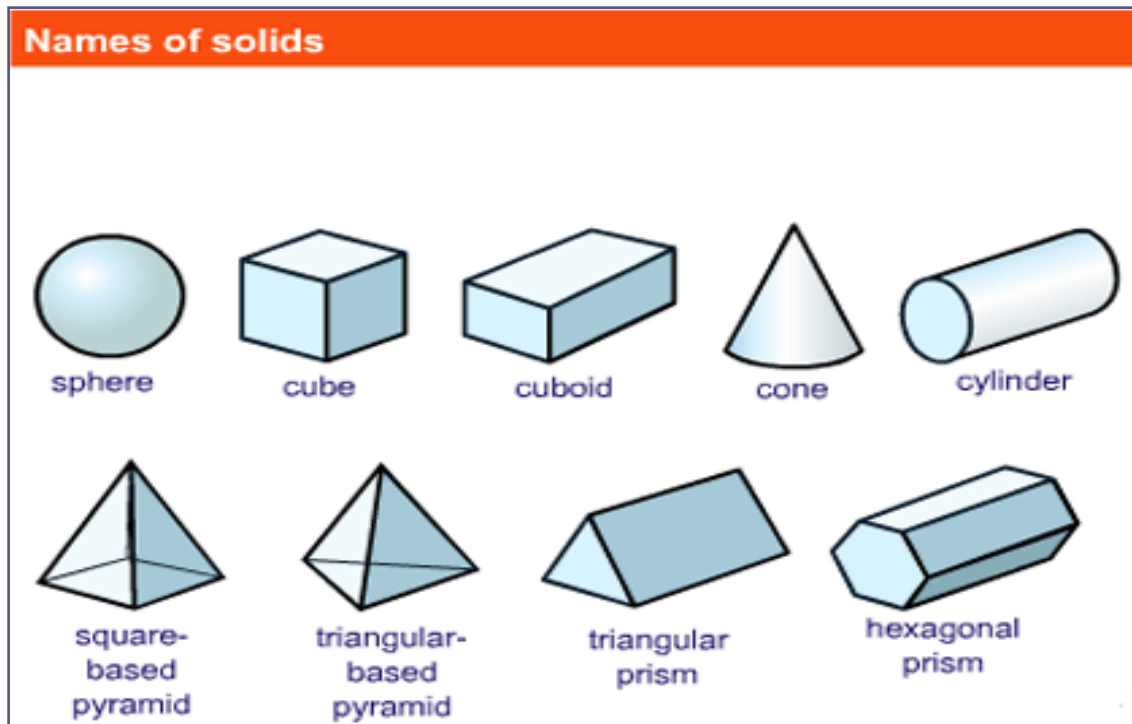
- **Announcements**
 - Chapter 5 Test on Thursday, February 12th.
 - Early Release on Wednesday, February 11th.
- **Class Objectives – *What you should learn today!***
 - Calculating Surface Area of Solids
- **Assignment**
 - Lesson 9.7: 1-11, 14, 16



Surface Area

- **Surface Area**

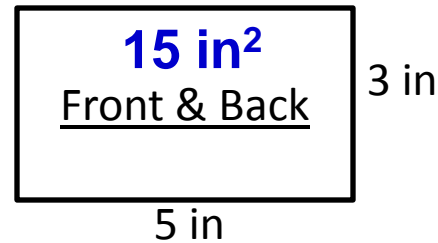
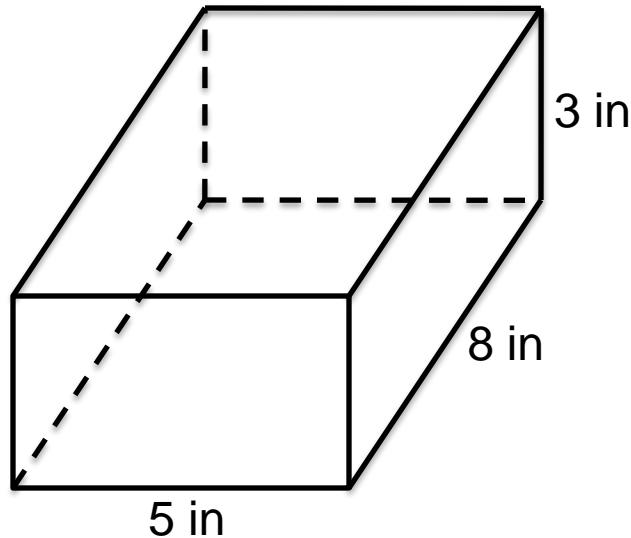
- The sum of the areas of all the faces (or surfaces) that enclose a solid - including the solid's top and bottom (**bases**) and the remaining surfaces (**lateral faces** or surfaces).



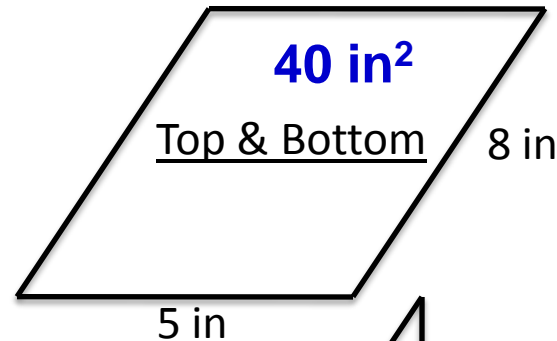


Example - Rectangular Prism

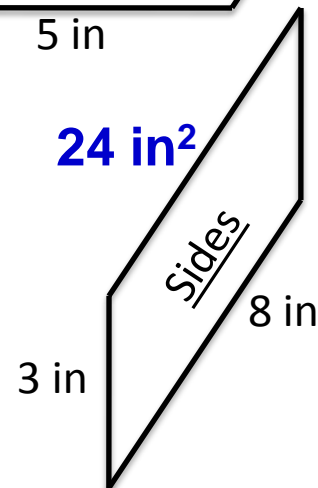
- Calculate the Surface Area



$$15 \times 2 = 30 \text{ in}^2$$



$$40 \times 2 = 80 \text{ in}^2$$



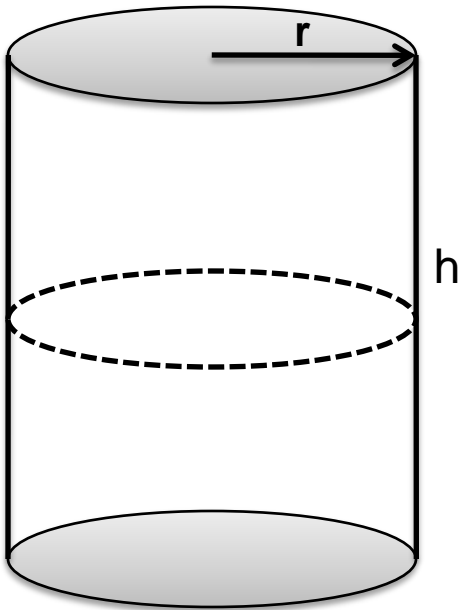
$$24 \times 2 = 48 \text{ in}^2$$

$$148 \text{ in}^2$$



Cylinder - Surface Area

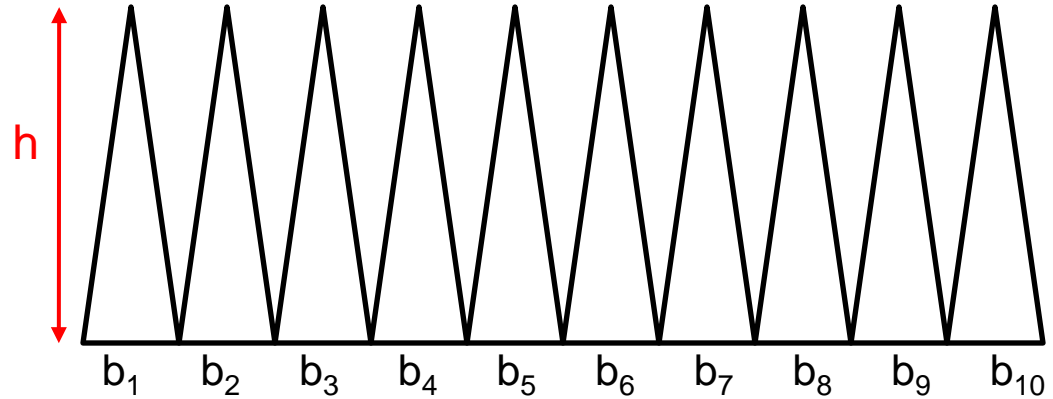
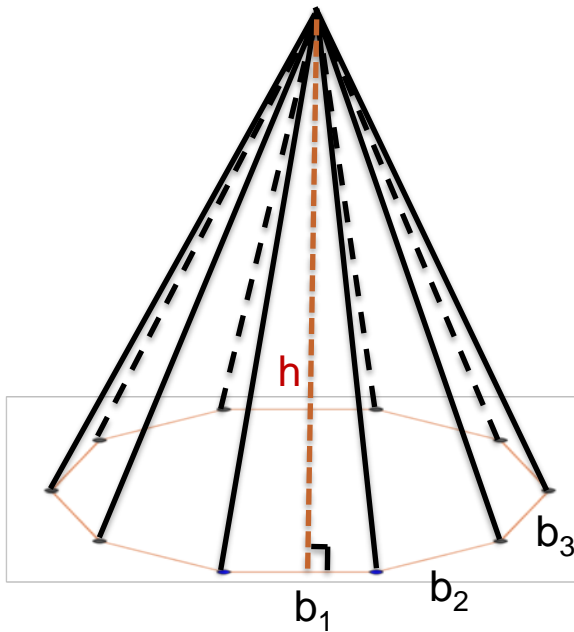
- **Let's take one apart and see what we get...**





Pyramid - Lateral Surface Area

- Let's think about this one...



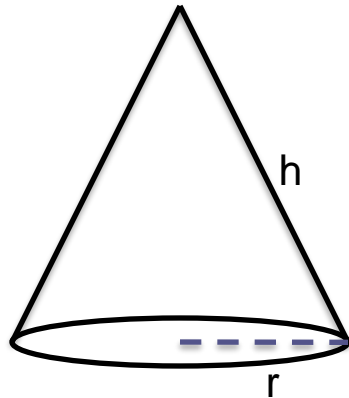
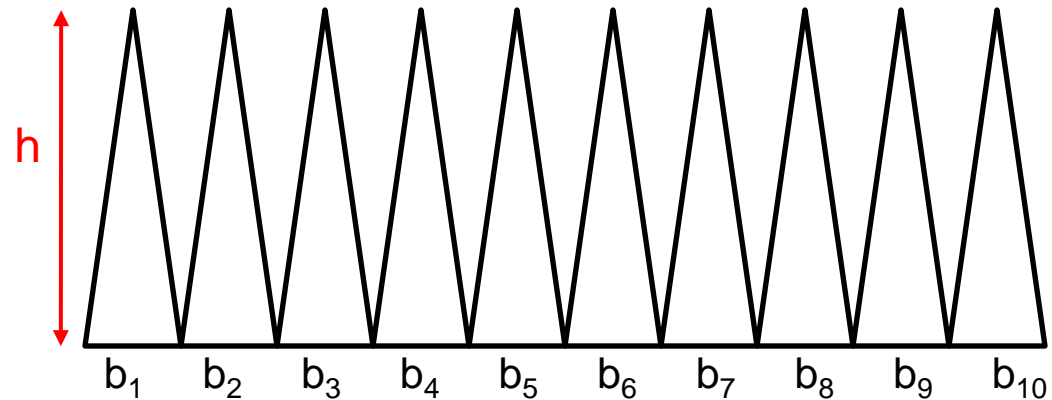
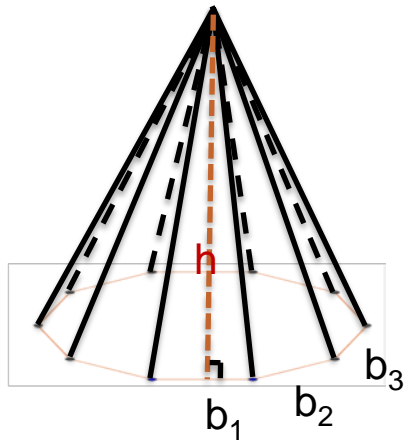
**Lateral
Surface
Area**

$$\begin{aligned}
 &= \frac{1}{2}b_1h + \frac{1}{2}b_2h + \frac{1}{2}b_3h + \dots + \frac{1}{2}b_{10}h \\
 &= \frac{1}{2}h(b_1 + b_2 + b_3 + \dots + b_{10}) \\
 &= \frac{1}{2}h \cdot p \text{ (where } p \text{ is the Perimeter)}
 \end{aligned}$$



Cone - Surface Area

- Consider a Pyramid with an infinite # of sides...



Lateral Surface Area $= \frac{1}{2} h \cdot p$ (where p is the *Perimeter*)

Base Surface Area



Applied Math – Daily Summary

- **Announcements**

- Chapter 4 Test on Thursday, February 12th.
- Early Release on Wednesday, February 11th.

- **Class Objectives – *What you should learn today!***

- QUIZ: Sections 4.1 thru 4.6 (Measurement)

- **Assignment**

- No HW
- Geometric Art (**TODAY IS LAST DAY!**)