

# Mr. Northcutt's Math Classes Class Presentation

April 6, 2009 (131)



Math 1



Math 2



Applied Math



# Math 1 – Daily Summary

- **Announcements**

- 4<sup>th</sup> Quarter Starts Today...
- I have Bus Duty - will not be in room until 3:45!
- **QUIZ: Sections 7.1 thru 7.4 on Thursday!**

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

- Review of Solving (and Checking) Systems of Equations
  - Graphing
  - Substitution, and
  - Elimination

- **Assignment**

- **Worksheet:** “Spring Break” Review (Systems Eqns.)

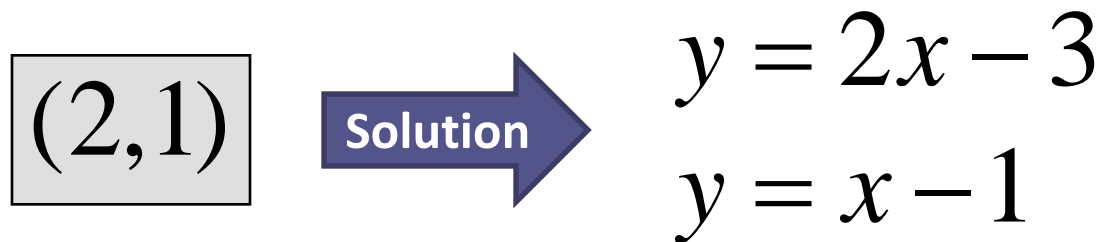


# System of Equations

- A **System** of Linear Equations is two or more equations together...

$$\left. \begin{array}{l} y = 2x - 3 \\ y = x - 1 \end{array} \right\} \begin{array}{l} \text{Equations of Lines} \\ \text{(Slope-Intercept Form)} \end{array}$$

- A **Solution** of the System is any ordered pair (x,y) that satisfies both equations at the same time.





# Math 2 – Daily Summary

- **Announcements**

- 4<sup>th</sup> Quarter Starts Today...
- I have Bus Duty - will not be in room until 3:45!
- **TEST: Chapter 11 (Volume) on Monday (4/13).**

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

- Review of Volume:
  - Prisms and Cylinders
  - Pyramids and Cones
- Applications of Displacement and Density

- **Assignment**

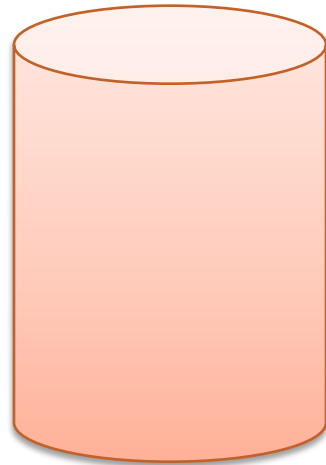
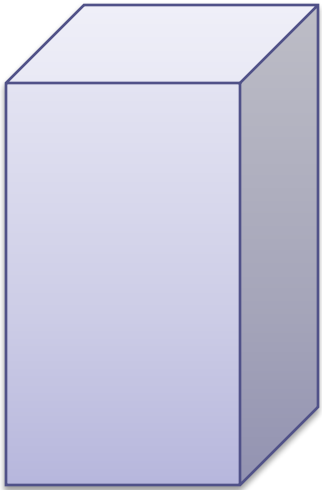
- **Lesson 11.6: 1-10, 12**

# Volume Review



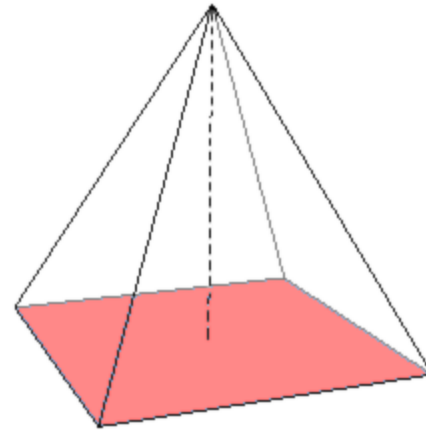
## Prism and Cylinder

$$\textit{Volume} = B \cdot h$$



## Pyramid and Cone

$$\textit{Volume} = \frac{1}{3} \cdot B \cdot h$$





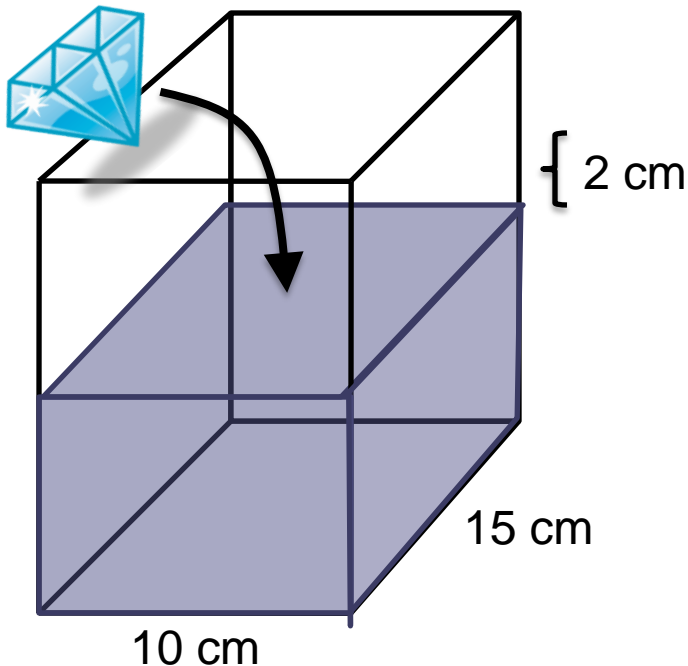
# Displacement

- Think about a full bathtub or glass...what happens if you step in the tub or add an ice cube to the glass?
- The **DISPLACEMENT** (the volume that overflows in each case) equals the volume of the solid below the level of the liquid.
  - You can use “displacement” to calculate the *volume of irregularly shaped objects*.



# Example (Displacement)

- You want to calculate the volume of a diamond. You place it into a rectangular prism containing water. When you place the diamond into the container the water *rises* 2 cm. What is the volume of the diamond?





# Density

- **Density**

- The mass of matter in a given volume. (Density is calculated by dividing the mass (in grams) by the volume (in  $\text{cm}^3$ ).

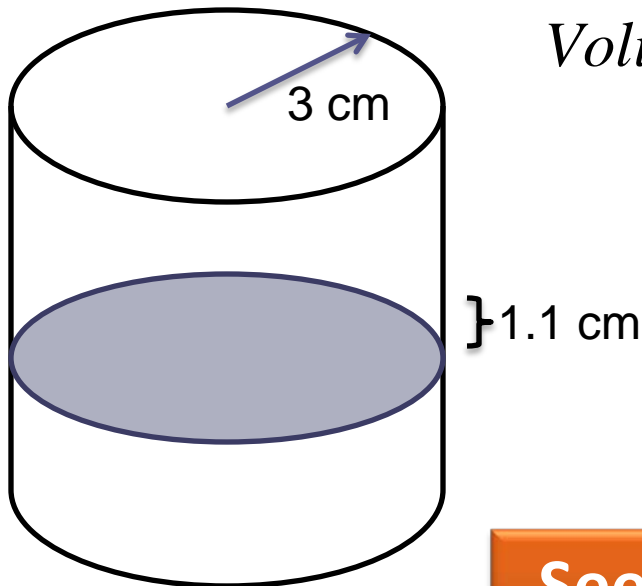
$$\text{Density} = \frac{\text{mass}}{\text{volume}} = \frac{\text{grams}}{\text{displacement}} = \frac{\text{g}}{\text{cm}^3}$$





# Example (Density)

- A clump of metal weighing 351.4 g is dropped into a cylindrical container, causing the water to rise 1.1 cm? What is the metal?



$$\begin{aligned} \text{Volume} &= \pi(3)^2(1.1) \\ &= \pi(9)(1.1) \\ &= 31.1 \text{ cm}^3 \end{aligned}$$

$$\begin{aligned} \text{Density} &= \frac{351.4 \text{ g}}{31.1 \text{ cm}^3} \\ &= 11.3 \frac{\text{g}}{\text{cm}^3} \end{aligned}$$



See table on pg. 555  
for density of metals.

# Applied Math – Daily Summary



- **Announcements**

- 4<sup>th</sup> Quarter Starts Today...
- I have Bus Duty - will not be in room until 3:45!
- **TEST: Chapter 9 (Systems of Equations) on Wednesday (4/15 - next week).**

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

- Systems of Equations - What are they?
- Solving Systems of Equations by Graphing

- **Assignment**

- **Worksheet:** Solving Systems by Graphing



# System of Equations

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