

Mr. Northcutt's Math Classes Class Presentation

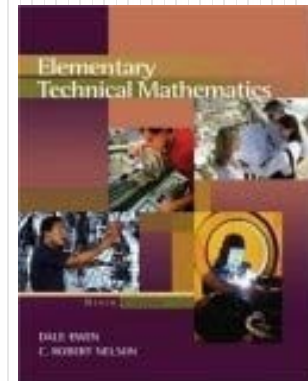
February 2, 2009 (94)



Math 1



Math 2



Applied Math



Math 1 – Daily Summary

- **Announcements**
 - **Quiz on 5.1-3 Tomorrow!**
- **Class Objectives – *What you should learn today!***
 - Understand the New Terms: Independent & Dependent Variables
 - Be able to use Function Rules, Data Tables and Graphs to model functions.
- **Assignment**
 - **Section 5-3: 1-3, 4, 8 12, 13, 15-23 ODD**



Review

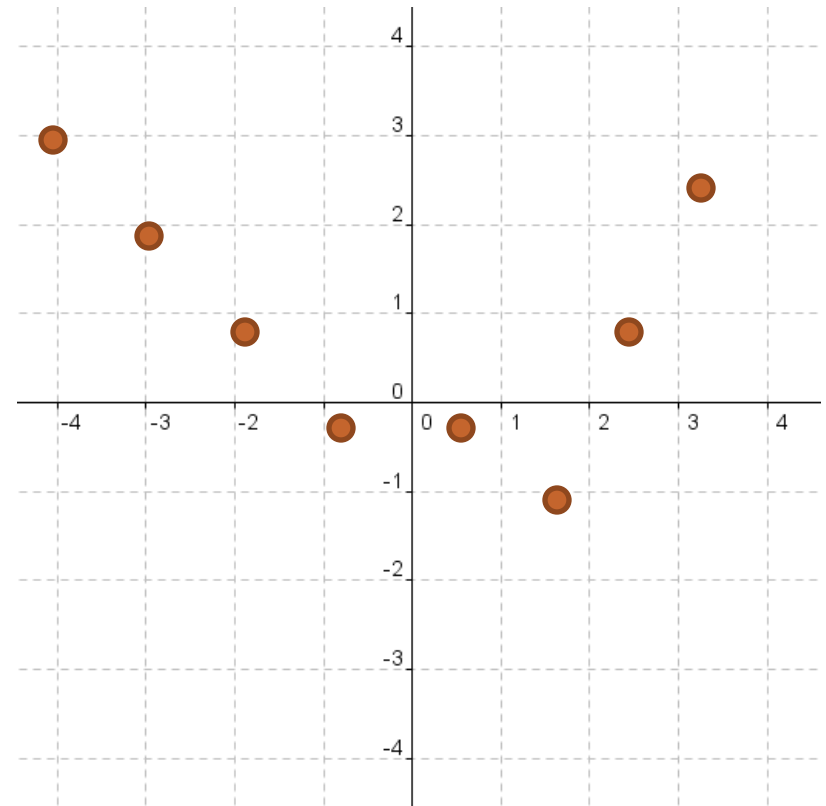
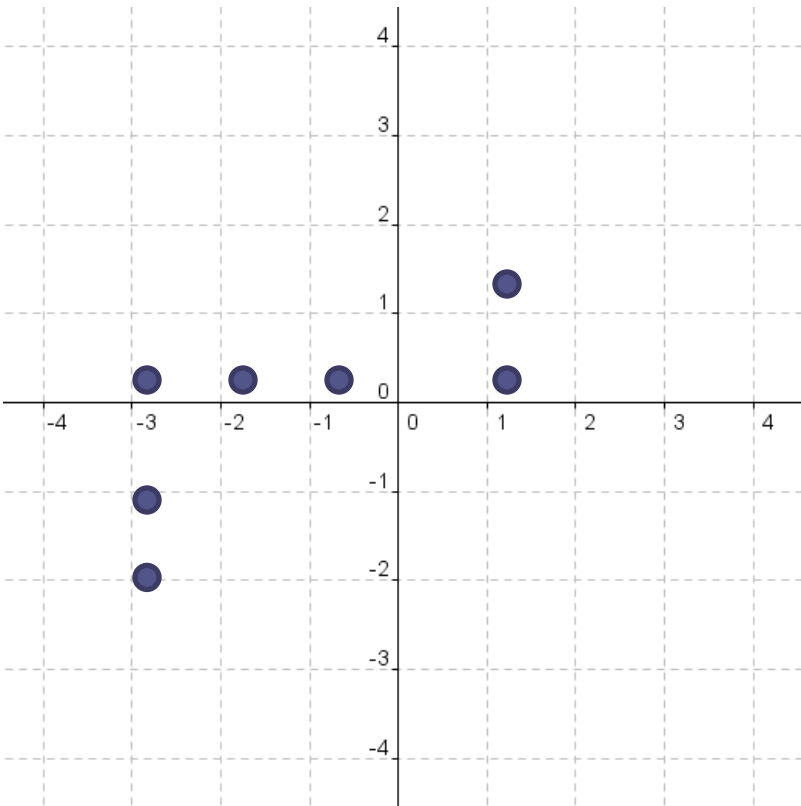
- Find the Domain and Range of the Ordered Pairs
 - $(1,3), (-4,0), (3,1), (0,4), (2,3)$

- Use Mapping to determine whether the Relation is a Function.



Review

- Use the Vertical-Line Test to determine whether each Relation is a Function.





Review

- Find the Range of the Function $f(g) = 3g - 5$ for the Domain $\{-2, 2, 4\}$.

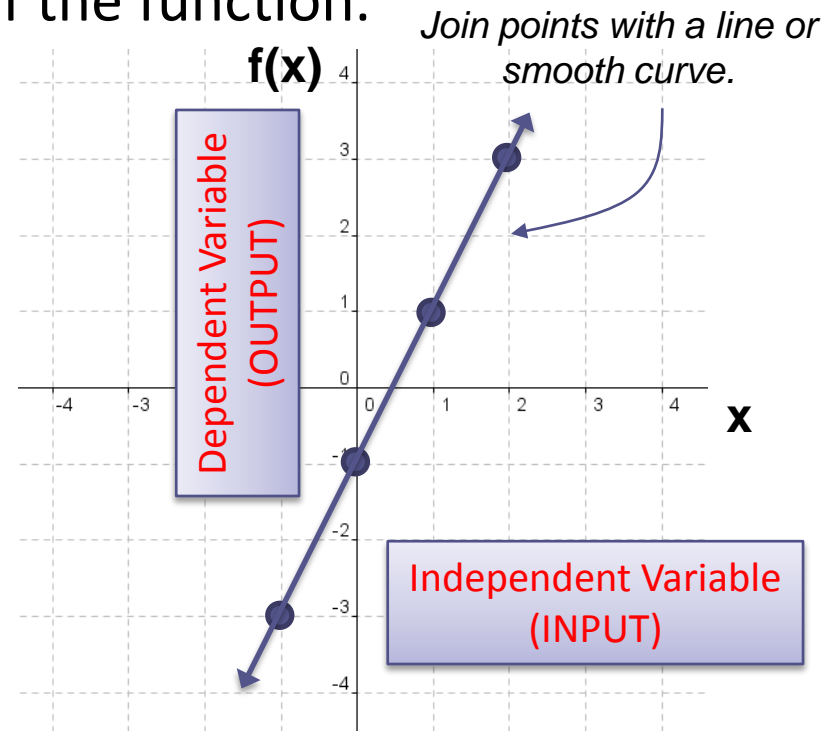


Rules, Tables & Graphs

- **You can model functions using:**
 - **Rules:** Shows how variables are related.
 - **Tables:** Identifies specific inputs and outputs.
 - **Graphs:** Gives a visual picture of the function.

$$f(x) = 2x - 1$$

| x | $f(x) = 2x - 1$ | $(x, f(x))$ |
|----|--------------------------|-------------|
| -1 | $f(-1) = 2(-1) - 1 = -3$ | $(-2, -5)$ |
| 0 | $f(0) = 2(0) - 1 = -1$ | $(0, -1)$ |
| 1 | $f(1) = 2(1) - 1 = 1$ | $(1, 1)$ |
| 2 | $f(2) = 2(2) - 1 = 3$ | $(2, 3)$ |



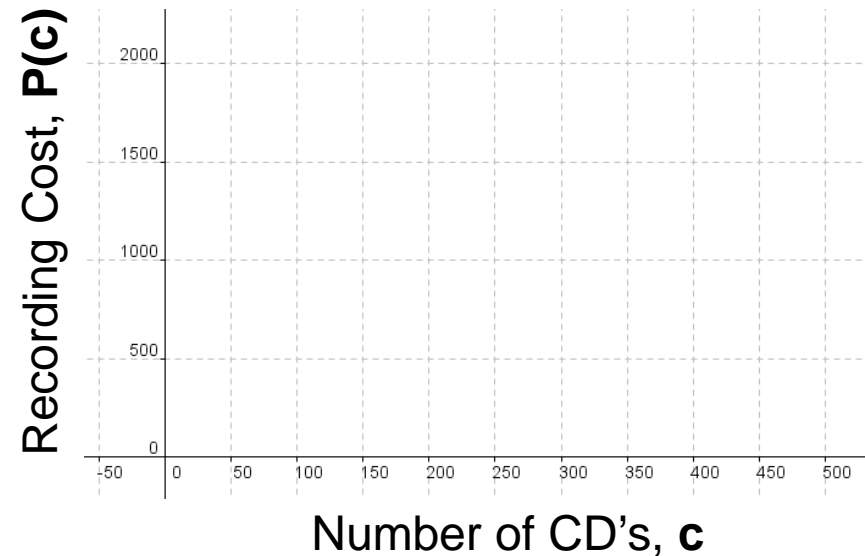


Example

- **Suppose a band wants to produce a CD. It costs \$250 to make a master CD and \$3 to burn each CD. The total cost $P(c)$ depends on the number of CDs burned, c .**
 - Define the function rule, $P(c)$, and make a table and graph.

$$P(c) =$$

| c | $P(c) =$ | $(c, P(c))$ |
|-----|------------|-------------|
| 0 | $P(0) =$ | $(0,)$ |
| 100 | $P(100) =$ | $(100,)$ |
| 200 | $P(200) =$ | $(200,)$ |
| 500 | $P(500) =$ | $(500,)$ |





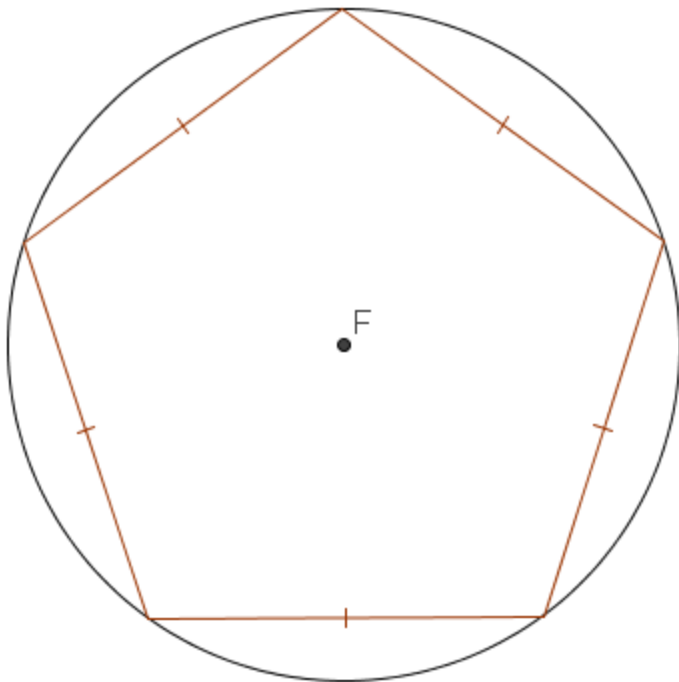
Math 2 – Daily Summary

- **Announcements**
 - **Quiz on 9.1-4 Tomorrow!**
- **Class Objectives – *What you should learn today!***
 - New Terminology: APOTHEM
 - Ability to calculate area of REGULAR POLYGONS...based on triangles!
- **Assignment**
 - **Lesson 9.4: 1-4, 8-13, 17**



How would you do it?

- **What information would you need to calculate the area of the inscribed polygon (in Circle F)?**





Area of a Regular Polygon

- The area of a **REGULAR POLYGON** is:

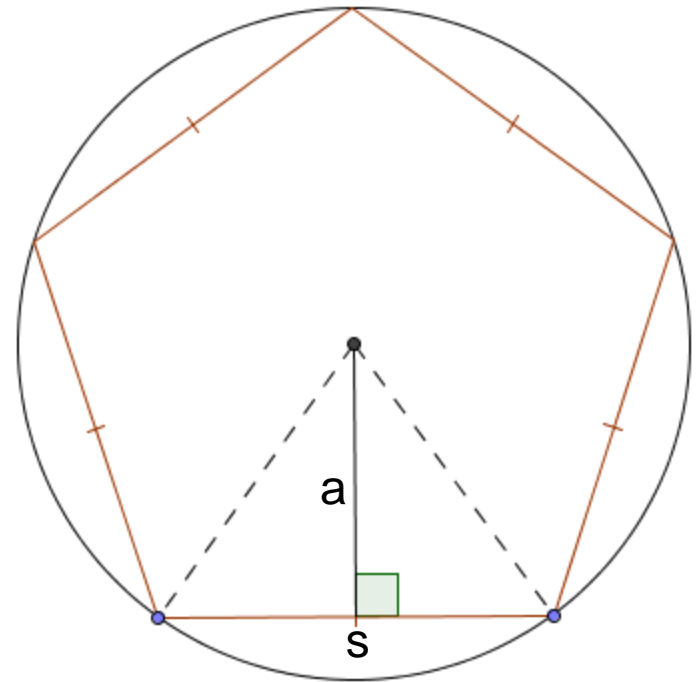
$$\left(\frac{1}{2} s \cdot a \right) \cdot n$$

where:

s = length of a side

a = length of the apothem

n = number of sides of the polygon





Applied Math – Daily Summary

- **Announcements**

- Geometric Art Projects Due Today!
- **Quiz on Sections 4.1 thru 4.4 on Friday!**

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

- Understand APPROXIMATION and ACCURACY in measurements
- Identify the accuracy of individual measurements

- **Assignment**

- **Section 4.1: 2-36 EVEN**
- Finish Geometric Art (*-2 points each day late*)



Approximate Numbers & Accuracy

- Is it possible to know the “exact” RPMs?





Exact vs. Approximate Numbers

- **Exact Number**
 - Number that has been determined as a result of counting.
- **Approximate Number**
 - Number that has been determined by a measurement.

Exact vs. Approximate Numbers

- Only counting numbers are exact.
- All measurements are approximations.



Accuracy (Significant Digits)

- The Accuracy of a measurement means the number Significant Digits that it contains.

- The greater the number of significant digits the more accurate the measure.

- **Significant Digits**

- Nonzero Digits
- “Tagged” zeros ($\bar{0}$)
- Zeros between Significant Digits
- Zeros right of significant digits AND a decimal point

109.006

0.000589

75

239,000

239,000 $\bar{0}$

239,000 $\bar{0}$

0.03200

1.20

9.020

100.050