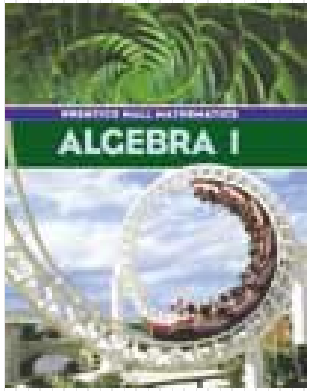
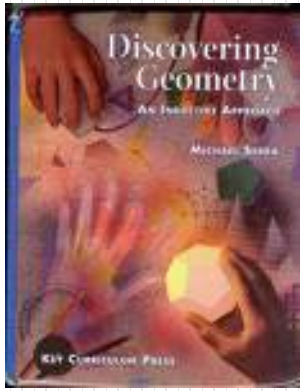
Mr. Northcutt's Math Classes
Class Presentation

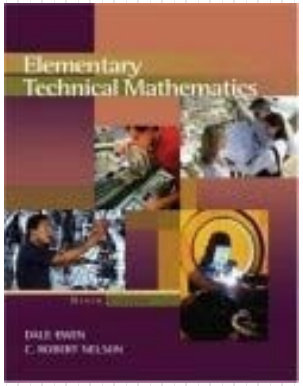
February 26, 2009 (109)



Math 1



Math 2



Applied Math

Math 1 – Daily Summary

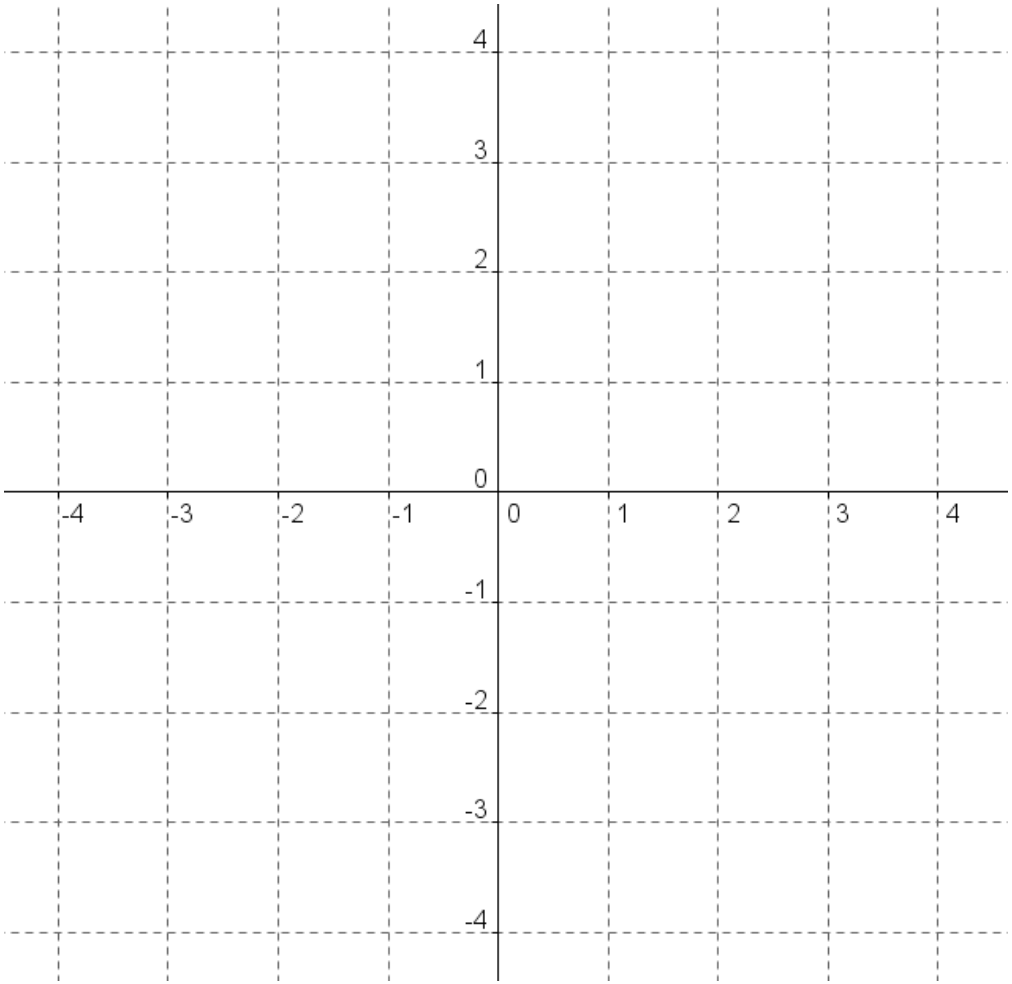
- **Announcements**
  - **QUIZ**: Sections 6.1 thru 6.3 Tomorrow
- **Class Objectives – *What you should learn today*!**
  - Work with equations of lines in either form:
    - Slope-Intercept
    - Standard Form
- **Assignment**
  - **Worksheet**: Equations of Lines

Slope-Intercept Form $y = mx + b$

- **Identify Slope (m) and y-intercept (b), then graph.**

$$y = -\frac{2}{3}x - 1$$

$$2x + 3y = 6$$



Standard Form

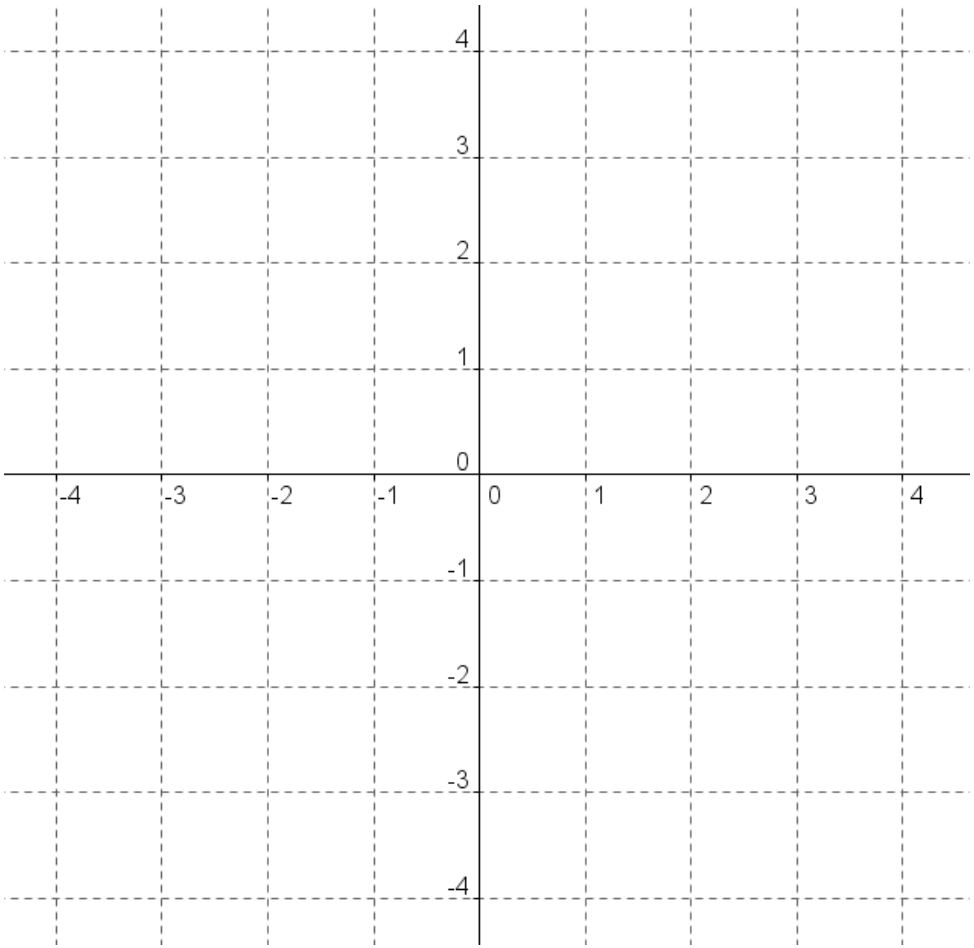
- **The Standard Form of a Linear Equation is:**

$$Ax + By = C$$

- **Examples:**

$$3x + 4y = 8$$

$$2x - 3y = 12$$



GRAPH USING:
1. **Slope-Intercept Form**
2. **x- & y-intercepts**

Math 2 – Daily Summary

- **Announcements**
  - **QUIZ**: Lessons 10.1 thru 10.7 Tomorrow
- **Class Objectives – *What you should learn today*!**
  - Ability to use the Distance Formula (Pythagorean Theorem) and Equation of a Circle in problems.
- **Assignment**
  - **Lesson 10.7**:1-13

Solutions: 10.6

1: 24 ft^2

2: 4.9 m

3: 20 in

4: 50 km/hr

5: 10 m

6: $30\sqrt{2}$ in

7: 8 ft

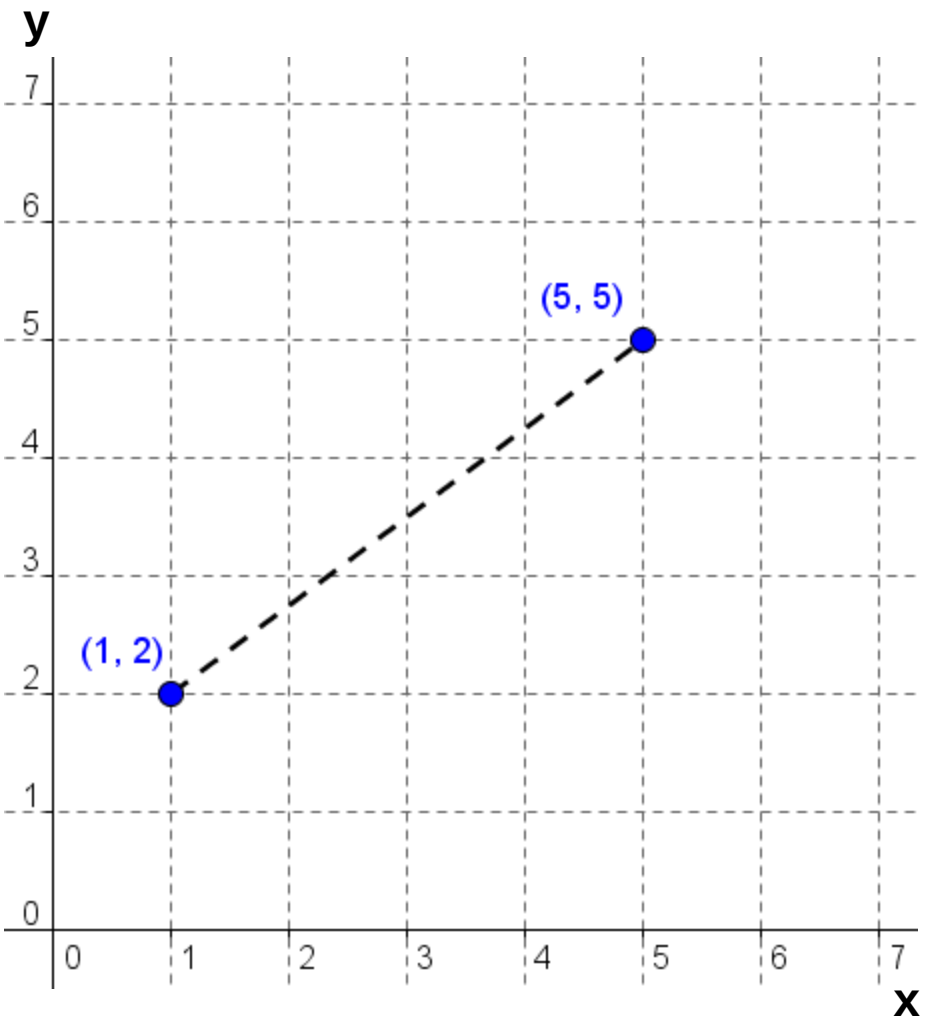
8: 60 m^2; $7200

16: Leg is longer than hypotenuse.

17: Isosceles right triangle, hypotenuse should be $4\sqrt{2}$

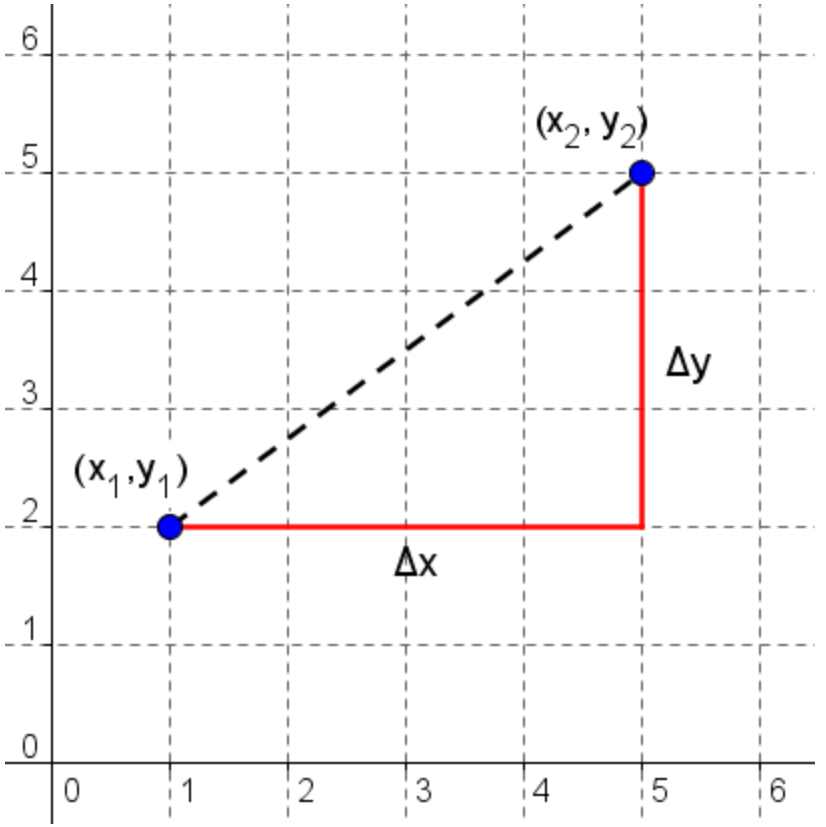
Distance Between Points

- **How might you find the distance between the 2 points?**



Distance Between Points

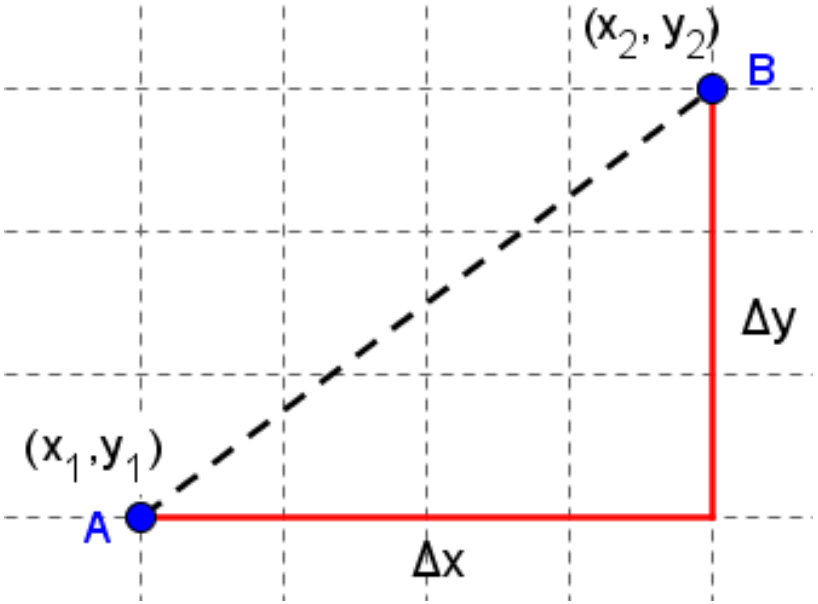
- **Can you create an expression for the distance between any 2 points: (x_1,y_1) and $x_2,y_2)$?**



Distance Formula

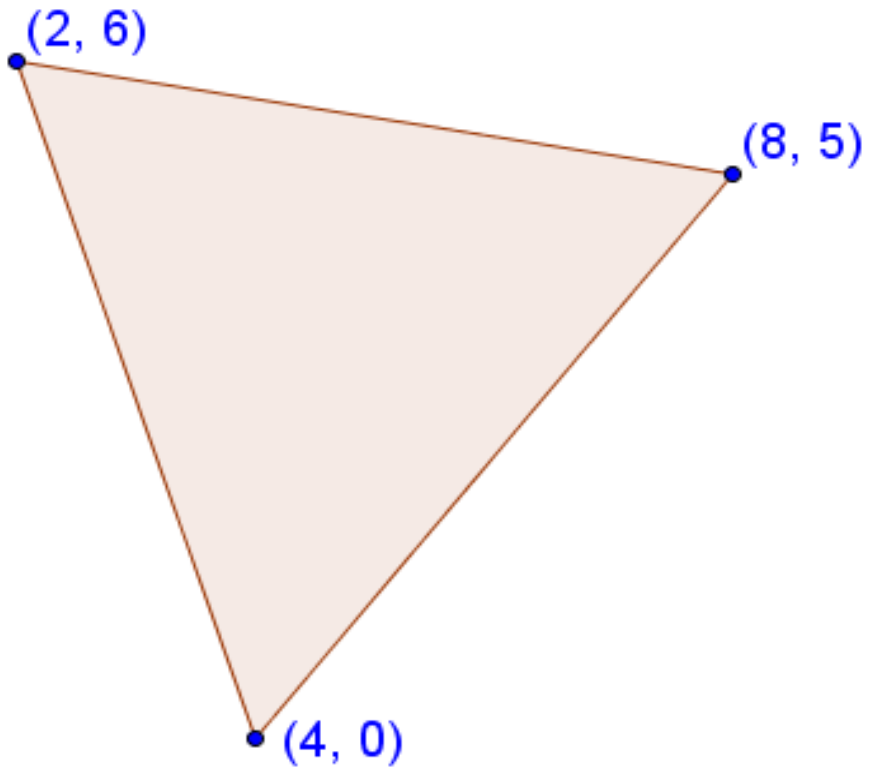
- **If the coordinates of points A and B are (x_1,y_1) and $x_2,y_2)$, respectively, then:**

$$AB = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$



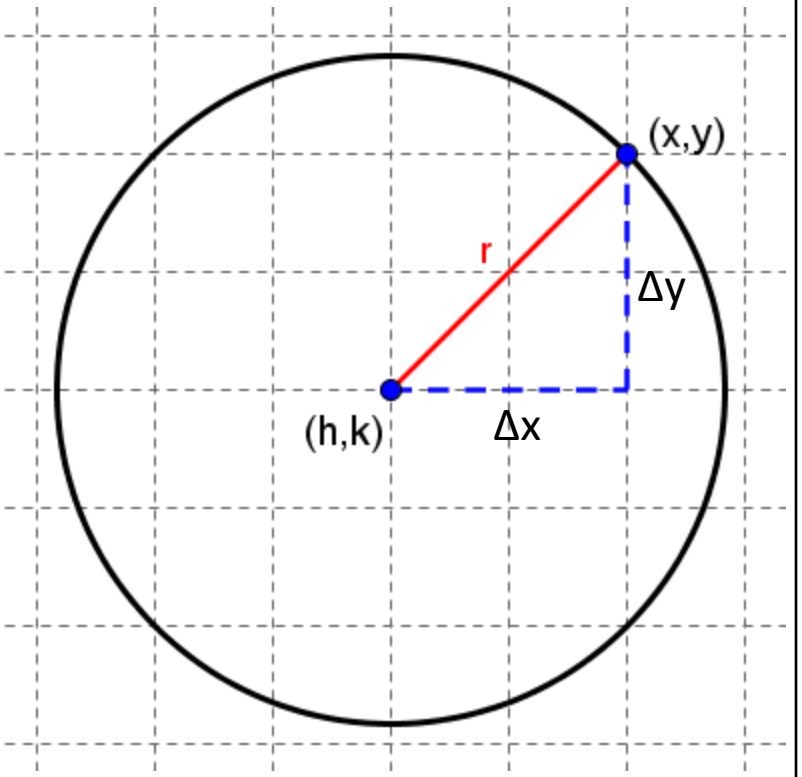
Example

- **Is the following triangle scalene, isosceles or equilateral?**



Equation of a Circle

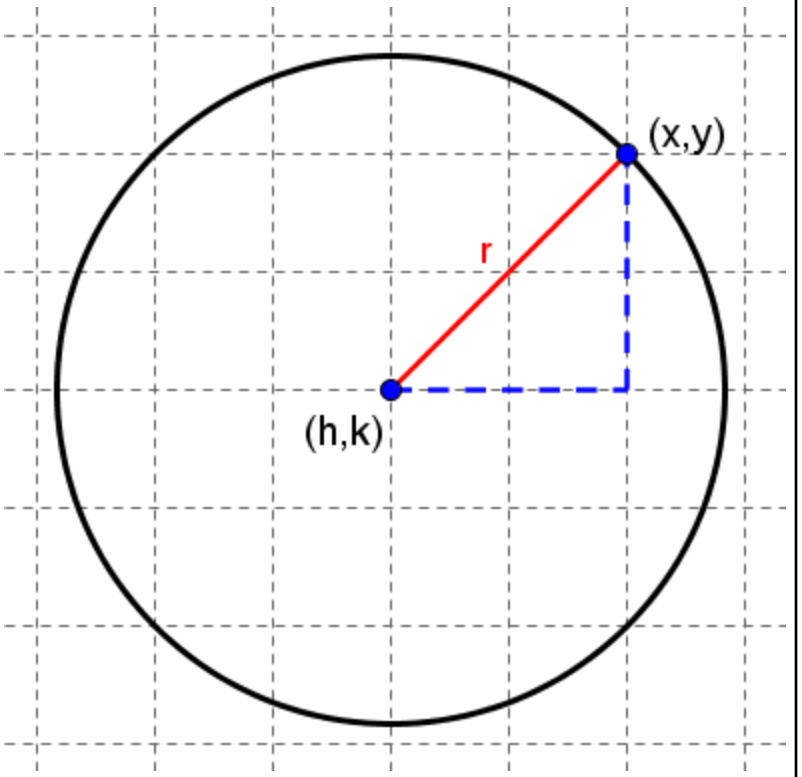
- **Use the <u>Distance Formula</u> to calculate the distance between the point (h,k), center of the circle and the point (x,y), on the circle.**



Equation of a Circle

- **The equation for a circle with radius r and center (h, k) is:**

$$(x-h)^2+(y-k)^2=r^2$$



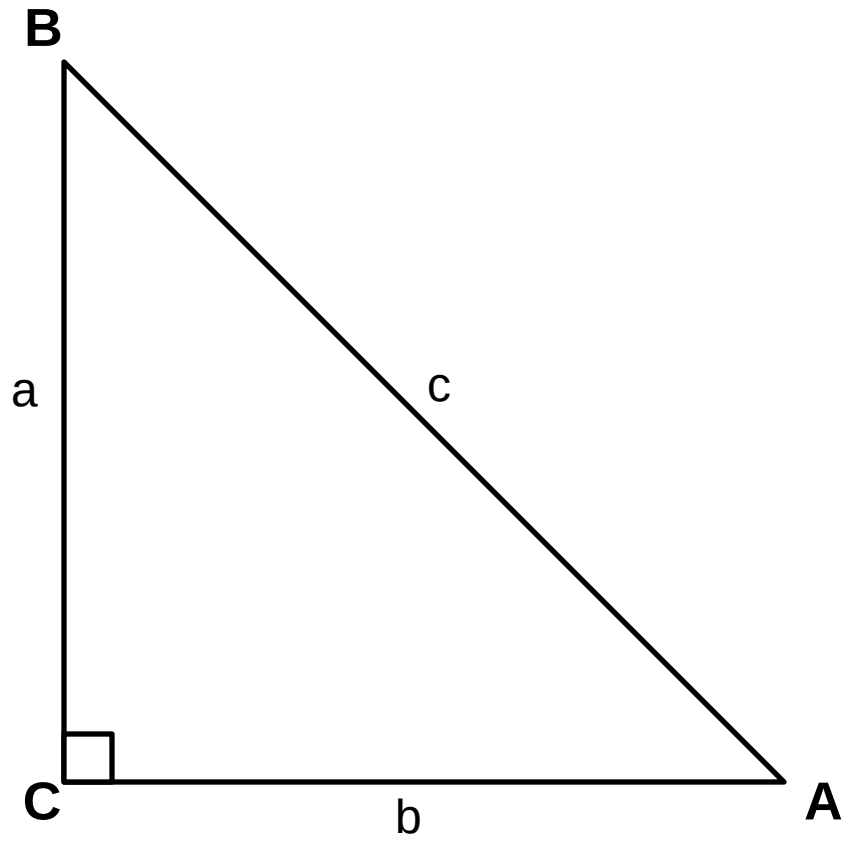
Applied Math – Daily Summary

- **Announcements**
  - **QUIZ**: Sections 13.1 thru 13.3 Tomorrow
- **Class Objectives – *What you should learn today*!**
  - Use Trigonometric Ratios to find the side lengths and missing angles of Right Triangles.
- **Assignment**
  - **Exercises 13.4**: 2-24 EVEN (all answers to **3 significant digits**)

Find ALL Angles & Side Lengths

- **∠A = 50.6º, c = 49.0 cm**

Discuss Side-to-Angle Naming Convention!



Trigonometric Ratios (Right Triangles)

- **Sine, Cosine & Tangent of an angle.**

$$\sin\angle x = \frac{Opposite}{Hypotenuse}$$

$$\cos\angle x = \frac{Adjacent}{Hypotenuse}$$

$$\tan\angle x = \frac{Opposite}{Adjacent}$$

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