

Mr. Northcutt's Math Classes Class Presentation

March 9, 2009 (116)



Math 1

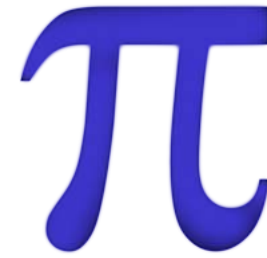


Math 2



Applied Math

Math 1 – Daily Summary



CRT Tomorrow

- **Announcements**

- Chapter 6 Test on FRIDAY!

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

- Quiz Results & Review
- Applied Project: “Stressed to the Breaking Point”
 - Definitions of Scatter Plots, Trend Line, and Correlation
 - Ability to define the equation of a line from a scatter plot to estimate the results

- **Assignment**

- Review Worksheet (based on Quiz results)



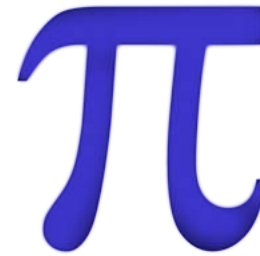
Quiz Review - Equation of Lines

- **Finding SLOPE from GRAPH or POINTS**
 - Signed Arithmetic (Negative Numbers)
 - Positive vs. Negative Slope
- **Working with SLOPE-INTERCEPT FORM**
 - Write equation from a graph
 - Transform equation to Slope-Intercept Form
- **Working with POINT-SLOPE FORM**
 - Write an equation from a point and slope
 - Write an equation from two points (find slope first)
 - Transform to Slope-Intercept Form

RELATED WEAKNESSES:

- Signed Arithmetic
- Fractional Arithmetic
- Solving Equations

Math 2 – Daily Summary



CRT Tomorrow

- **Announcements**

- Two days of Trigonometry - Prior to CRT on Tuesday

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

- CRT Quick Review: Probability, “Counting” & Showing Work
- Review of Trigonometric Ratios (and Functions)
- Definition of Inverse Trigonometric Functions
 - Ability to calculate missing sides or angles using trigonometric ratios
 - Applications of Trigonometric Ratios

- **Assignment**

- **Lesson 13.1: 9-26**



Probability of an Event

- **Probability of an “Desired Outcome”, $P(A)$, is defined as:**

$$P(A) = \frac{\# \text{ Desired Outcomes}}{\text{Total \# of Outcomes}}$$

$$0 \leq P(A) \leq 1$$

- **Probability of an Outcome NOT occurring:**

$$1 - P(A)$$



CRT Sample Question - Probability

Loretta has a bag containing 11 marbles. Of these marbles, 2 are white, 3 are red, and 6 are blue. If she picks a marble out of the bag at random, what is the probability that the marble is **not** red?

A. $\frac{3}{11}$

B. $\frac{8}{11}$

C. $\frac{8}{22}$

D. $\frac{3}{22}$

CRT Sample Question - "Counting"



17. With each meal at the Old Bay restaurant, a customer chooses two side dishes. The table below lists side dishes that are served at the restaurant.

Side Dishes
Baked potato
Coleslaw
Baked beans
Potato salad
House salad
Creamed corn

In how many different ways can a customer choose two different side dishes?

- A. 12
- B. 15
- C. 30
- D. 36

Trigonometric Ratios (Right Triangles)



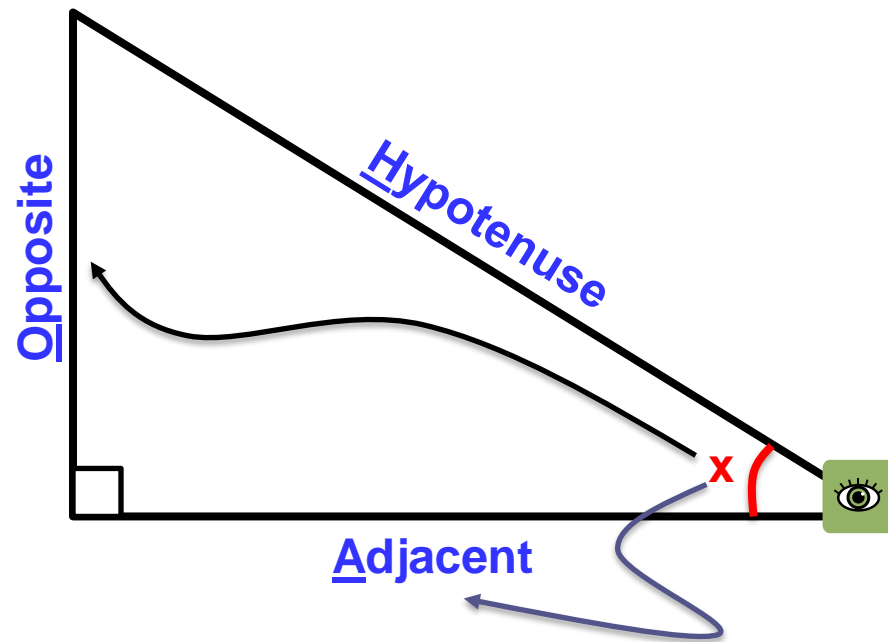
- Sine, Cosine & Tangent of an angle.

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

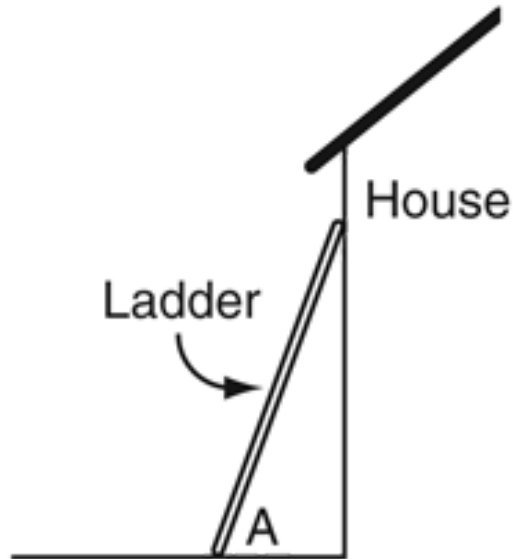
$$\cos \angle x = \frac{\textit{Adjacent}}{\textit{Hypotenuse}}$$

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

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CRT Sample Question - Trigonometry



54. The instructions for a painter's ladder indicate the following: For the ladder to be at the proper angle with the ground, the distance from the bottom of the wall to the bottom of the ladder should be one-fourth the length of the ladder. Which equation could be solved to find the measure of the angle that the ladder should make with the ground?

- A. $\cos A = 4$
- B. $\cos A = \frac{1}{4}$
- C. $\sin A = 4$
- D. $\sin A = \frac{1}{4}$

CRT - Showing Your Work (Freeform)



- If asked, you need to show **EVERY STEP** of your work - even if you can do it in your head!

72. What is the solution to the equation below?

$$3x - 7x + 4 = 4x - 7$$



Inverse Trigonometric Functions

- You know how to use the SIN, COS and TAN to find the sine, cosine and tangent given an angle.

Get a
Calculator!

- Inverse Trigonometric Functions

- You can also find an angle given the sine, cosine or tangent of the angle - using SIN^{-1} , COS^{-1} and TAN^{-1} .

What is sine of angle?

What angle has sine of...?

- **Find:** $\sin(30^\circ) = \underline{\hspace{2cm}}$

$$\sin^{-1}(0.5) = \underline{\hspace{2cm}}$$

$$\cos(45^\circ) = \underline{\hspace{2cm}}$$

$$\cos^{-1}(0.7071) = \underline{\hspace{2cm}}$$

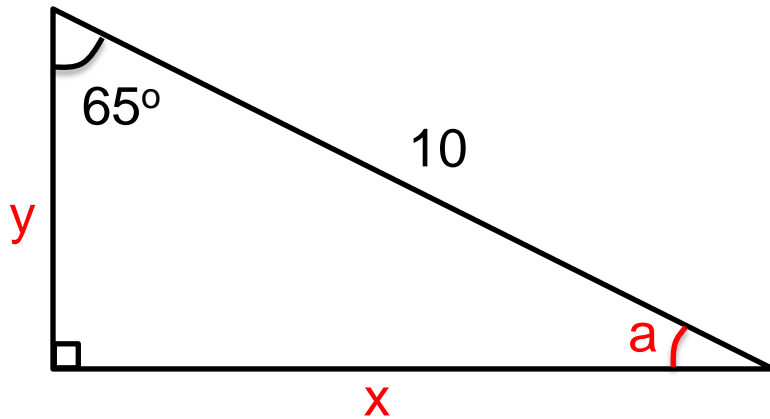
$$\tan(60^\circ) = \underline{\hspace{2cm}}$$

$$\tan^{-1}(1.732) = \underline{\hspace{2cm}}$$

Example: Find Missing Measurements



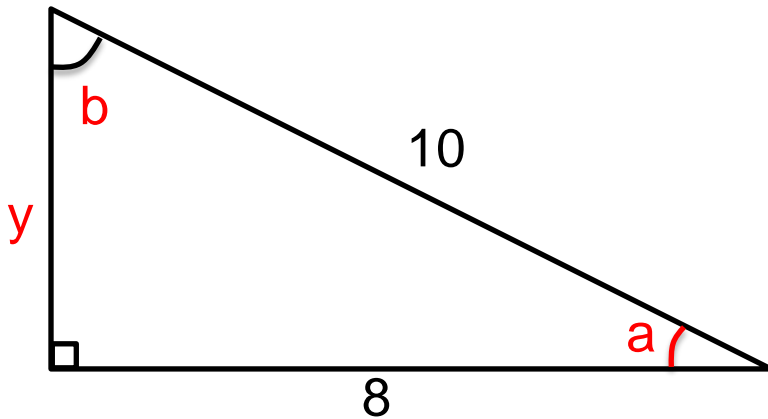
- Find the missing measurements.



Example: Find Missing Measurements



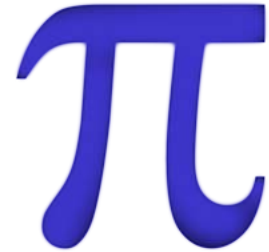
- Find the missing measurements.



Applied Math – Daily Summary



CRT Tomorrow



- **Announcements**

- None

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

- Finalize Project and Begin Work
- Project Criteria:
 - Related to Trigonometry
 - Educationally “Appropriate”
 - Duration 2-4 Days & Amount of Work Appropriate
 - Able to Execute (materials, weather, etc.)
 - Fun!

**Project Definition
Due Today!**

- **Assignment**

- Work on Project **(25 TEST POINTS)**