

Mr. Northcutt's Math Classes Class Presentation

May 4, 2009 (151)



Math 1



Math 2



Applied Math

Math 1 – Daily Summary



- **Announcements**

- **TEST: Sections 10.1 thru 10.4 on MONDAY (next week)**

- **BRING TEXTBOOK TO CLASS TOMORROW!**

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

- QUIZ Review - Graphing Quadratic Equations
- More...Graphing Quadratic Equations

- **Assignment**

- Worksheet: Graphing Quadratic Equations



Steps for Graphing Quadratic Eqns.

1. Find ($x=?$) and Draw the Axis of Symmetry

$$x = \frac{-b}{2a}$$

2. Find y -coordinate of Vertex and Graph Vertex

$$y(x) = ax^2 + bx + c \quad \text{Vertex} = (x, y)$$

3. Find y -intercept (if Axis of Symmetry not the y -axis)

- Y -intercept = c

4. Find Additional Points (pick x values & evaluate)

X	Y
1	-3
?	?



Math 2 – Daily Summary

- **Announcements**
 - **TEST on Chapter 13 - Trigonometry on MONDAY (next week)**
- **Class Objectives – What you should learn today?**
 - TEST Review - Chapter 12 (Similarity)
 - REVIEW: Right Angle Trigonometry
 - Sine, Cosine, Tangent
 - Inverse Sine, Cosine, Tangent
 - Applications of Trigonometry (“Word Problems”)
- **Assignment**
 - Worksheet: Right Angle Trigonometry

Trigonometric Ratios (Right Triangles)



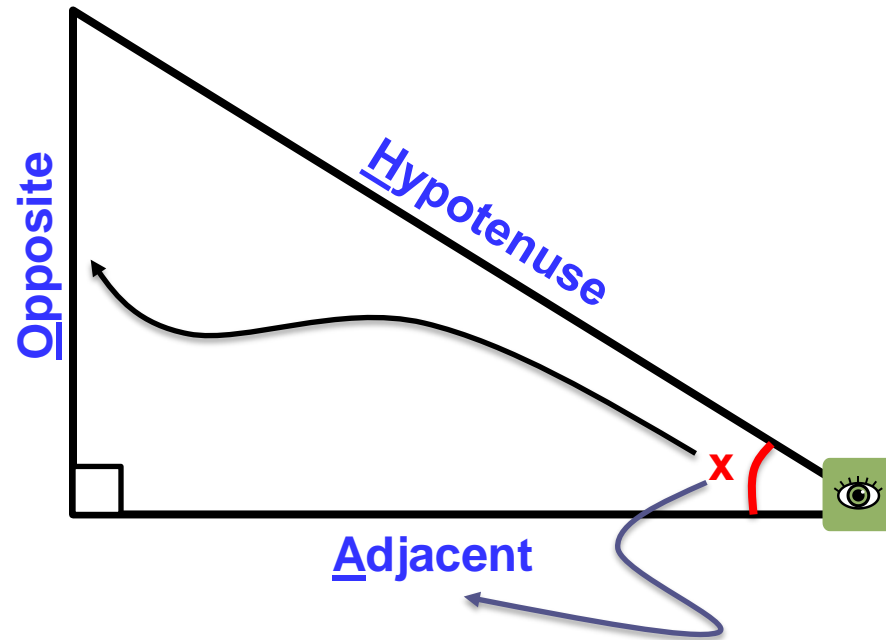
- Sine, Cosine & Tangent of an angle.

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

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

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

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Using Calculator for Trig. Functions

- Verify in **DEGREES** mode!
- Find the following:

$$\sin 60^\circ = \underline{\hspace{2cm}}$$

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

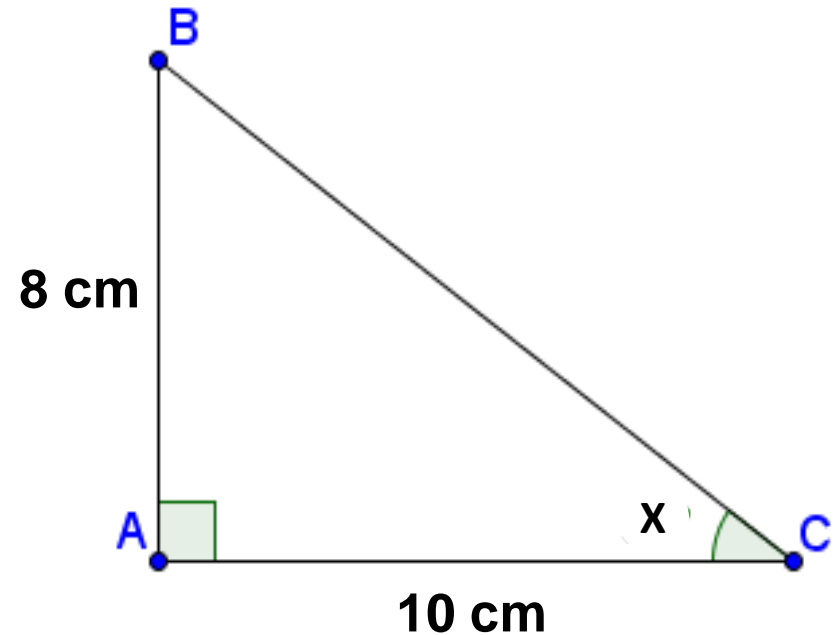
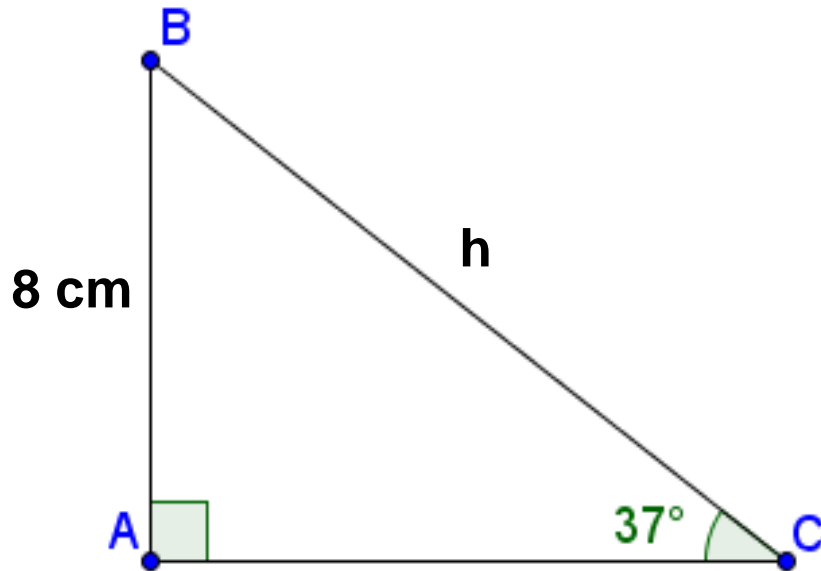
$$\tan 30^\circ = \underline{\hspace{2cm}}$$



How Would You Apply This?

- Find the missing measurements.

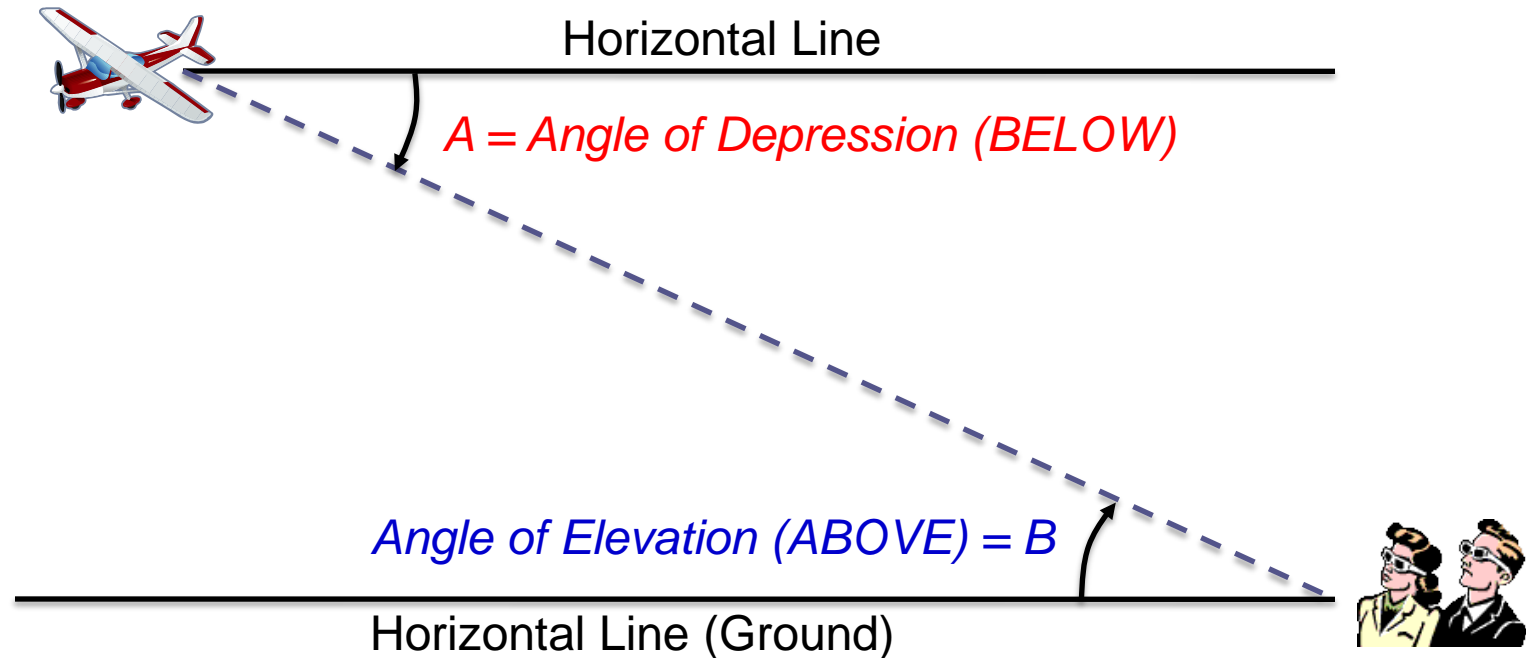
NOTE: Pythagorean Theorem does not help with only one side!





Angles of Depression & Elevation

- Angle between the horizontal and the line of sight to an object BELOW/ABOVE the horizontal.





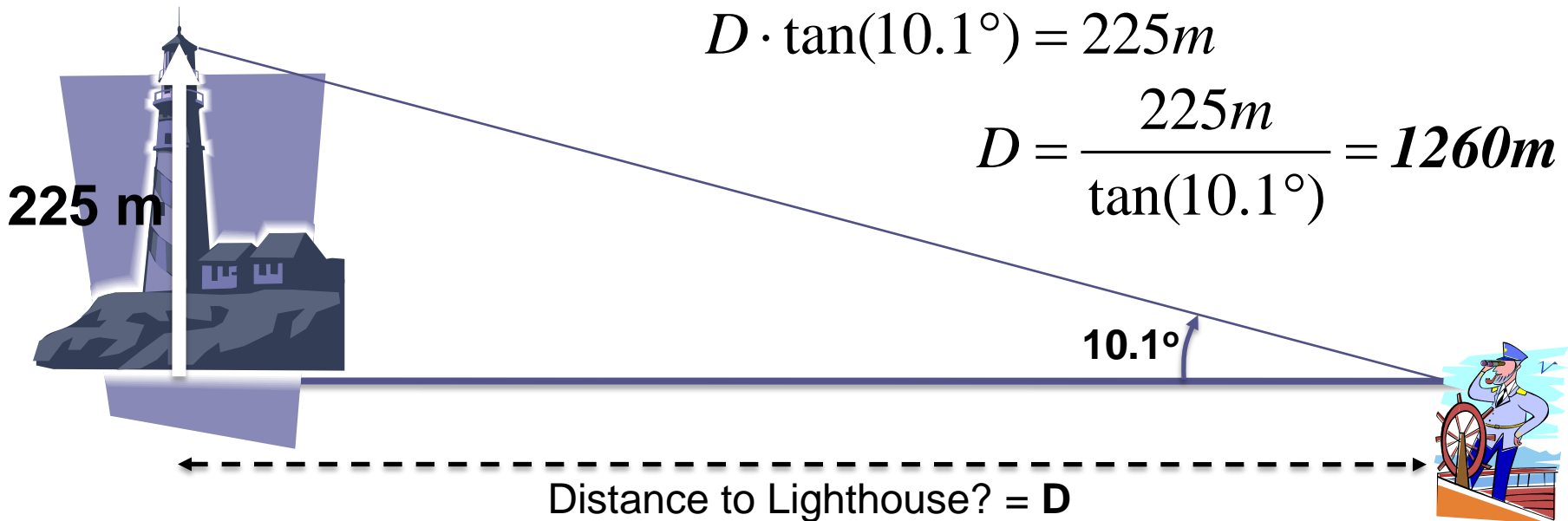
Example #1

- A ship's navigator measure the angle of elevation to the beacon of a lighthouse to be 10.1° . He knows the beacon is 225m above sea level. How far is the ship from the lighthouse?

$$\tan(10.1^\circ) = \frac{225m}{D}$$

$$D \cdot \tan(10.1^\circ) = 225m$$

$$D = \frac{225m}{\tan(10.1^\circ)} = 1260m$$



Applied Math – Daily Summary



- **Announcements**

- **TEST: Data Analysis with MS Excel - TODAY and TOMORROW**

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

- Begin test on Charts and Data Analysis using MS EXCEL

- **Assignment**

- TEST