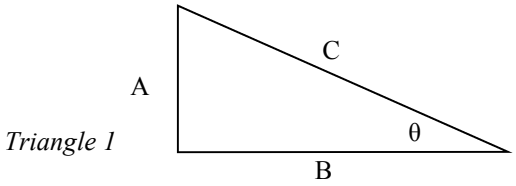
A-Day: Due Mon., Oct 1 (Assigned: 9/27)
B-Day: Due Tues., Oct 2 (Assigned: 9/29)

Two Dimensions 2

Use your notes: "Trigonometry Basics" to answer the following.

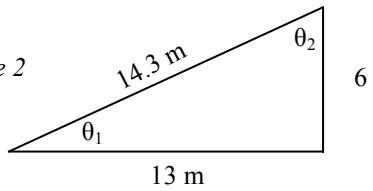
1. What symbol do we use for any angle?

2. In triangle 1 at the right,
   A) ___ Which side is the hypotenuse?
   B) ___ Which side is opposite the angle?
   C) ___ Which side is adjacent to the angle?



Triangle 1

3. In triangle 2
   A) ___ Which is adjacent to θ_1?
   B) ___ Which is opposite to θ_2?
   C) ___ Which is adjacent to θ_2?
   D) ___ Which is hypotenuse to θ_1?
   E) ___ Which is hypotenuse to θ_2?
   F) ___ Which is opposite to θ_1?



Triangle 2

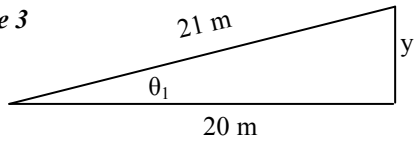
Make SURE that your calculator is in degrees, not radians. Put sin30 into your calculator if it is not 0.5, then you're in radians.

4. Use your calculator to find the following. (*YOU MUST be able to do this easily. If you have trouble come see me or go to the website and do the trigonometry study helps.)*

   A. sin65 = _____
   B. If sinθ = 0.56, then θ = _____?
   C. tan20 = _____
   D. cos40 = _____
   E. tan70 = _____
   F. If cosθ = 0.45, then θ = _____?
   G. sin35 = _____
   H. If sinθ = 0.56, then θ = _____?
   I. cos15 = _____
   J. If sinθ = 0.5 then θ = _____?
   K. If cosθ = 0.866, then θ = _____?
   L. If tanθ = 1, then θ = _____?

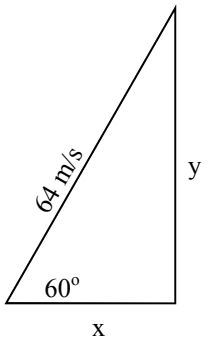
5. On triangle 3, find the y component of 21m (find y).
   Variables: Equation: Solve:
   θ =
   opposite =
   adjacent =
   hypotenuse =

Triangle 3



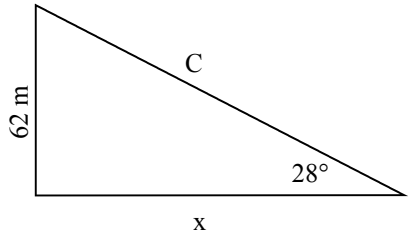
6. On triangle 4, find the y component of 64 m/s.
   Variables: Equation: Solve:

7. Now, find the x component of 64 m/s.
   Variables: Equation: Solve:



Triangle 4

8. Find BOTH x and the hypotenuse.



Triangle 5

More on back

Just so we don't forget….

9. An object is thrown into the air going 35 m/s, how long does it take to get back to the ground?
   A) Which two letters of the freefall diagram is this situation?

   B) What are you looking for?

   C) Write the variables of everything you know:
   Variables:

   D) Pick an equation and solve.

10. Add these to your equation sheet.

$\sin\theta = \frac{\text{opp}}{\text{hyp}}$
$\cos\theta = \frac{\text{adj}}{\text{hyp}}$
$\tan\theta = \frac{\text{opp}}{\text{adj}}$