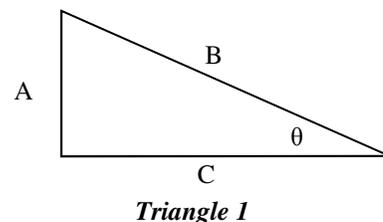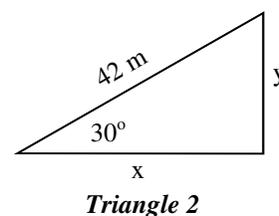# Two Dimensional Motion 1

If you need help: 1) refer to the notes given; 2) go to the website: "Physics Study Helps", then "Trigonometry".
(And BIG hint: make sure your calculator is on "Degrees" and not "Radians". Not sure? Sin 30° = 0.5.

1. On ***Triangle 1***, which letter is opposite angle θ?

2. On ***Triangle 1***, which letter is adjacent to angle θ?

3. On ***Triangle 1***, which letter represents the hypotenuse?

4. Write the equations for sin, cos, and tan for ***Triangle 1***. *(Ex. Tan = F/G)*
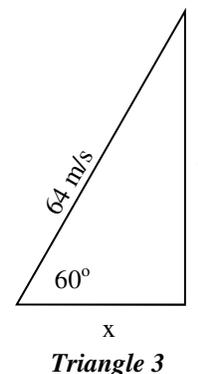

Triangle 1

5. On triangle 2, assign variables (opposite, adjacent, hypotenuse, θ).
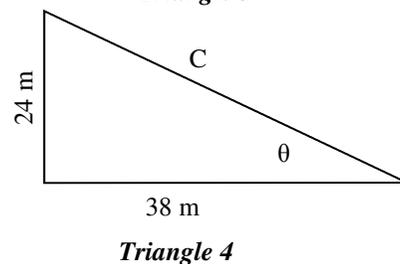   opposite =
   adjacent =
   hypotenuse =
   θ =

6. Using sin, cos, or tan, find "y" for ***Triangle 2*** (known as the "y-component" of "42 m").

Triangle 2

7. On ***Triangle 3***, follow the same procedures above to find the x—component.

8. Find the y – component of ***Triangle 3***.

Triangle 3

9. Find the hypotenuse of ***Triangle 4***.

Triangle 4

10. Find θ for ***Triangle 4***.

11. Find the hypotenuse and x-component of ***Triangle 5.***
    (Assign variables and use Trig. Formulas.)

Triangle 5