Visit the following Math class Java API link

http://docs.oracle.com/javase/6/docs/api/java/lang/Math.html

- 1. What do you notice about the methods in the math class?
  - They are all static methods
  - All of them return something
  - There are a lot of overloaded methods
- 2. Look up the Java Subset http://www.collegeboard.com/student/testing/ap/compsci\_a/java.html

List the five Math methods you are required to know for the AP exam: header of the methods

- Static int abs(int x)
  Static double abs(double x)
  Static double pow(double base, double exponent)
  Static double sqrt(double x)
  Static double random()

Write code that will take the square root of x and store the result in y.

Write code that will multiply the value of the integer j times the absolute value of the integer m and then store the result in the integer k.

Is the following legal? If not, what would you do to make it legal? int k = Math.abs(-127.5);

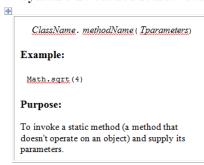
Write a statement that will print the result of  $2^{1.5}$ .

- 3. int y = Math.sqrt(x);
- 4. int k = Math.abs(m)\*j;
- 5. Yes it is legal
- 6. System.out.println(Math.pow(2, 1.5));

7. Convert the equation into Java code (careful with the parenthesis)

$$\frac{-b + \sqrt{b^2 - 4aa}}{2a}$$

Syntax 3.2: Static Method Call



Int quadraticEquation = -(b) + Math.sqrt(Math.pow(b, 2) - (4\*a\*c))/(2\*a);

8. Think about a math equation you may have tried to solve or can solve. Can your math equation/problem be solved using Math methods (Math Class). If so, which ones?

Int areaOfCircle = Math.PI \* Math.pow(r, 2);

Math.pow(c, 2) = Math.pow(a, 2) + Math.pow(b, 2);

Int VolOfCylinder = Math.PI \* Math.pow(r, 2) \* h;