

## Homework – Math Class

Use the Java API and other online resources to investigate the Java Math class.

1. Which package does the Math class belong to?

`java.lang`

2. Name the methods that find the absolute value? How many of such methods are there?

**4x** `Math.abs()`

`int, long, float, double`

**2x** `Math.absExact()`

`int, long`

3. Name the method that calculates the power of a number, e.g.  $2^3$  or  $x^4$ .

`Math.pow()`

4. Name the method that can be used to generate a random number.

`Math.random()`

5. How do you call these methods in Math class? (Go online to look for examples)

`Math.abs(a);`

`Math.absExact(a);`

`Math.pow(a, b); //  $a^b$`

`Math.random(); // random value between 0 and 1`

Let's try to write some code now!

6. **RandomNum.java** Write a program that will print out a random number between 0 and 100.
7. **Exponent.java** Write a program that ask user for a base  $b$ , and an exponent  $e$ , then print out the power  $b^e$ .
8. **AbsValue.java** Write a program that asks user for a number, then outputs the absolute value of that number.