Look on class Math
1. What does the method pow(double a, double b) do?
2. What is the name of the method that returns you the absolute value of a number?
3. Specify Pi as it is stored in Java. (Simply use Copy/Paste from the Java documentation)

1. pow(double a, double b)
    Returns the value of the first argument raised to the power of the second argument.

2. int abs(int a)
    Returns the absolute value of an int value.

3. public static final double PI
    The double value that is closer than any other to pi, the ratio of the circumference of a circle to its diameter.

Look on class String
4. What can be done with the split(String regex) method?
5. Which method can be used to lowercase all letters of a string?

4. split(String regex)
    Splits this string around matches of the given regular expression.

    Example:
    String str = "a + b - c * d / e < f > g >= h <= i == j";
    to split the string on all of the operators, but include the operators in the array, so the resulting array looks like:
    [a , +, b , -, c , *, d , /, e , <, f , >, g , >=, h , <=, i , ==, j]

5. toLowerCase()
    Converts all of the characters in this String to lower case using the rules of the default locale.

    Example:
    String Str = new String("Das ALLES wird SPÄTER klein geschrieben");
      System.out.print("Return Value :");
      System.out.println(Str.toLowerCase());

Look on class BigInteger
6. Which method can we use to check whether the number is likely to be a prime number?

6. isProbablePrime(int certainty)
    Returns true if this BigInteger is probably prime, false if it's definitely composite.

    public static BigInteger probablePrime(int bitLength,Random rnd)
    Returns a positive BigInteger that is probably prime, with the specified bitLength. The probability that a BigInteger returned by this method is

composite does not exceed 2^-100.

Look on class Thread
7. Which method do you use to let your program sleep for a certain number of milliseconds?

7   public static void sleep(long millis)
     throws InterruptedException
     Causes the currently executing thread to sleep (temporarily cease execution) for the specified number of milliseconds, subject to the precision and accuracy of system timers and schedulers. The thread does not lose ownership of any monitors.
     Parameters:
     millis - the length of time to sleep in milliseconds
     Throws:
     IllegalArgumentException - if the value of millis is negative
     InterruptedException - if any thread has interrupted the current thread. The interrupted status of the current thread is cleared when this exception is thrown.

General Java research
8. From which class all classes in Java inherit or which class is the mother of all classes in Java?
     =>Object
     all classes are connacted withe the klass java.lang.Object which is the base class