

- 1) 5, 11, 13, 14, 6, 11, 13, 14, 7, 8
- 2) Write method headers for methods with the following descriptions.
  - a) `public static int max(int intOne, int intTwo)`
  - b) `public static float smallestFloat(float floatOne, float floatTwo, float floatThree)`
  - c) `public static boolean isPrime(int num)`
  - d) `public static boolean containsString(String mainString, String substring)`
  - e) `public static double accountBalance(double initialBalance, double rate, double numYears)`
  - f) `public static void printAccountBalance(double initialBalance, double rate, double numYears)`
  - g) `public static void printCalendar(int month, int year)`
  - h) `public static String findWeekday(int day, int month, int year)`
  - i) `public static double randInr(int n)`
- 3) Give examples of the following methods from the Java library
  - a) `Math.acos(double a)`
  - b) `Math.atan2(double y, double x)`
  - c) `Double.parseDouble(String s)`
  - d) `Math.random()`
- 4) Write the following methods:
  - a) 

```
double smallest(double x, double y, double z){  
    int min = x;  
    if(y < min) min = y;  
    if(z < min) min = z;  
    return min;  
}
```
  - b) 

```
double average(double x, double y, double z){  
    return (x + y + z) / 3;  
}
```
- 5) True or false?
  - a) False
  - b) false
  - c) true
  - d) false
  - e) true
  - f) false
  - g) false
- 6) Without actually compiling and running a program, determine the results of the following method calls.
  - a) `x1 = 39.0`
  - b) `x2 = 400.0`
  - c) `x3 = 92.0`
  - d) `x4 = 62.0`
  - e) `x5 = 0.0`
- 7) .
  - a) What is the difference between an argument and a return value?
    - i. An argument is the value passed to the function, the return value is the value returned by the function
  - b) How many arguments can a method call have?
    - i. There is no limit
  - c) How many return values?

- i. A method can have multiple return statements but only one return value per method call
- 8) Write the definition of a method `twice`, which receives an `int` parameter and returns an `int` that is twice the value of the parameter.
- a) 

```
public static int twice(int num){  
    return (num * 2);  
}
```
- 9) Write the definition of a method `powerTo`, which receives two parameters. The first parameter is a `double` and the second is an `int`. The method returns a `double`, which is the value of the first parameter raised to the power of the second parameter. If this result is negative, the method returns zero.
- a) 

```
public static double powerTo(double numOne, int numTwo){  
    int result = Math.pow(numOne, numTwo);  
    if(result < 0){  
        return 0;  
    }  
    return result;  
}
```
- 10) Write the definition of a method `maxOf4` that has four `int` parameters and returns the largest.
- a) 

```
public static int maxOf4(int numOne, int numTwo, int numThree, int numFour){  
    int max = numOne;  
    if(numTwo > max) max = numTwo;  
    if(numThree > max) max = numThree;  
    if(numFour > max) max = numFour;  
    return max;  
}
```