



Problem I (Multiple Choice Questions)

- 1) All variables must be given an **initial value** before they are used since **otherwise**
 - a. the interpreter issues an error message
 - b. the compiler complains**
 - c. a run-time error is produced
 - d. both (a) and (c)

- 2) Given that $a = bx^2 + 5$; which of the following is a **valid Java statement** for this equation?
 - a. `int a = b * Math.pow(x, 2) + 5;`
 - b. `double a = (double) (b * x * x + 5);`**
 - c. `double a = b (Math.pow(x, 2)) + 5.0;`
 - d. None of the above

- 3) To extract the **first two characters** of the String stored in a variable called `str`, you would do:
 - a. `str.substring(0, 1);`
 - b. `str.substring(0, 1) + str.substring(1, 3);`
 - c. `str.substring(0, 2);`**
 - d. None of the above

- 4) Which of the following is part of the **java standard class library**?
 - a. Double**
 - b. Int
 - c. All of the above
 - d. None of the above

- 5) A Java program that uses the Random class **can import**
 - a. `java.text.Random`
 - b. `java.util.Random`
 - c. `java.util.*`
 - d. Either (b) or (c)**

Problem II (True/False)

1. The output of the program segment below is: 3 Done

```
String a = "2", b = "1";  
System.out.print(  
    Integer.parseInt(a)+Double.parseDouble(b));  
System.out.println(" Done");
```

Answer: True **False**
2. Consider a String variable called `str`. The following Java statement:
`str.length;` returns the total number of characters stored in `str`.
Answer: True **False**
3. A primitive-type variable can be used to invoke a method.
Answer: True **False**
4. A variable of type String can be used to hold a single character.
Answer: **True** False
5. If a `DecimalFormat` object is created as follows:

```
DecimalFormat fmt = new DecimalFormat("0.##");
```

Then the following statement: `fmt.format(23.567);` returns a double value of 23.57.
Answer: True **False**