**In class if statements review:**

Consider the following fragment of code:

**prize = 10;**

**if (mark < 60) {**

**prize = 50;**

**System.out.print("Excellent Work!");**

**}**

**else {**

**if (mark < 80) {**

**prize = 0;**

**System.out.print("You Failed!");**

**}**

**else {**

**prize = 25;**

**System.out.print("You Passed!");**

**}**

**}**

1. Given that MARK is equal to 75, the value \_\_\_\_\_\_\_\_ will be assigned to PRIZE.
2. Given that MARK is equal to 60, the value \_\_\_\_\_\_\_\_ will be assigned to PRIZE.
3. Given that MARK is equal to 80, the value \_\_\_\_\_\_\_\_ will be assigned to PRIZE.
4. People with marks \_\_\_ will be told **" You Passed!".**
5. Provided everyone gets a mark, \_\_\_ gets a prize of 10.
6. Translate this statement into Java:

If the value of temperature is in between 20.0 and 40.0, print “very cold”.

* 1. **if(!(temperature < 20.0 || temperature > 40.0))**

**System.out.println("very cold");**

* 1. **if(20.0 <= temperature <= 40.0)**

**System.out.println("very cold");**

* 1. **if(temperature >= 20.0 || temperature <= 40.0)**

**System.out.println("very cold");**

* 1. **if(temperature >= 20.0 | temperature <= 40.0)**

**System.out.println("very cold");**

1. What does the following code fragment write to the monitor?

**int height = 10;**

**if ( height <= 12 )**

**System.out.print("Low bridge: ");**

**System.out.println("proceed with caution.");**

1. Modify the following code by inserting braces to produce the output shown. [Note: It is possible that no modification is necessary].

|  |  |  |
| --- | --- | --- |
|  |  |  |
| **1. if (y==8)**  **2. if (x==5)**  **3. System.out.println(“@@@@@”);**  **4.**  **5. else**  **6.**  **7. System.out.println(“#####”);**  **8.**  **9. System.out.println(“$$$$$”);**  **10.**  **11. System.out.println(“&&&&&”);** |  | **1. if (y==8)**  **2. if (x==5)**  **3. System.out.println(“@@@@@”);**  **4.**  **5. else**  **6.**  **7. System.out.println(“#####”);**  **8.**  **9. System.out.println(“$$$$$”);**  **10.**  **11. System.out.println(“&&&&&”);** |

a) Assuming x=5 and y=8, the following output should be produced.

**@@@@@**

b) Assuming x=5 and y=3, the following output should be produced.

No output

|  |  |  |
| --- | --- | --- |
|  |  |  |
| **1. if (y==8)**  **2. if (x==5)**  **3. System.out.println(“@@@@@”);**  **4.**  **5. else**  **6.**  **7. System.out.println(“#####”);**  **8.**  **9. System.out.println(“$$$$$”);**  **10.**  **11. System.out.println(“&&&&&”);** |  | **1. if (y==8)**  **2. if (x==5)**  **3. System.out.println(“@@@@@”);**  **4.**  **5. else**  **6.**  **7. System.out.println(“#####”);**  **8.**  **9. System.out.println(“$$$$$”);**  **10.**  **11. System.out.println(“&&&&&”);** |

c) Assuming x=5 and y=3, the following output should be produced.

**$$$$$**

**&&&&&**

d) Assuming x=5 and y=3, the following output should be produced.

**&&&&&**

e) Assuming x=5 and y=3, the following output should be produced.

**@@@@@**

**#####**

f) What should be the values of x and y to be able to produce the following output.

**@@@@@**

**#####**