If Statement Worksheet

For each of the following, correct the syntax errors.

1.
```
if x > 25.0
   y = x
else
   y = z;
```

2.
```
if (x >> 0);
   System.out.println("positive " + x);
else;
   System.out.println("negative " + x);
```

What is the output of each of the following statements? Assume that x = 5, y = 2, z = 10, and temp = 0.

3.
```
if (y >= x)
   y = z;
System.out.println(x + "  " + y + "  " + z);
```

4.
```
if (y >= x) {
   y = z;
   System.out.println(x + "  " + y + "  " + z);
}
```

5.
```
if (x >= 6)
System.out.println(x + y);
System.out.println(x + y);
```

6.
```
if (x + y > z)
   x = y + z;
else
   x = y - z;
System.out.println(x + "  " + y + "  " + z);
```

Write if statements for the following problems. Use meaningful variable names. You can assume that the variables you use are declared and have been initialized.

7. If a variable angle is equal to 90 degrees, print the message "right angle. " Otherwise print the message "not a right angle".

8. If the difference between variables `'temp1'` and `'temp2'` is more than 2.3, set the variable `'approx'` to `(temp1 - temp2) * factor`.

9. A student at State U is ready to graduate if he or she has completed at least 122 credits. Write the statements to test whether a student is ready to graduate, and print a message telling whether he or she is ready.

10. Write an `if else if` statement that uses our schools 0-59, 60-69, 70-79, 80-89, 90-100 grading scale to display "A", "B", "C", "D", or "F" depending on the value of the integer variable named `testScore`. You may assume that `testScore` is a positive integer less than 101.

11. Write an if statement that displays "divisible by 3" if the integer variable num is evenly divisible by 3.

12. Write an if statement that displays "multiple of 5 and 7" if the integer variable num is a multiple of 5 and 7.

13. Write a method named `isPrime` that accepts an integer parameter named `num`. The method returns true if `num` is prime.Otherwise it returns false. You can assume as a precondition that `num` is less than 100.

```
public boolean isPrime(int num)
{

}
```