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  
a = 1, b = 2, c = 3, x = 5, y = 2, z = 10, and temp = 0**

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

**5 2 10**

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

**5 2 10**

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

**7**

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

**-8 2 10**

7. if (6 < 2 \* 5)

System.out.print("Hello");

System.out.print(" There");

**Hello There**

8. if(a>b)

if(a>c)

System.out.println("1111");

else System.out.println("2222");

**2222**

9. if (a < c)

System.out.println("\*");

else if (a == b)

System.out.println("&");

else System.out.println("$");

**\***

10. if(a<b)

System.out.println("####");

else

System.out.println("&&&&");

System.out.println("\*\*\*\*");

**####**

11. if(a>b)

System.out.println("####");

else {System.out.println("&&&&");

System.out.println("\*\*\*\*");}

**&&&&**

**\*\*\*\***

12. x = 100;

y = 200;

if (x > 100 && y <=200)

System.out.print(x+" "+y+" "+(x+y));

else System.out.print(x+" "+y+" "+(2\*x-y));

**100 200 300**

13. if (a < c)

System.out.println("\*");

else if (a == c)

System.out.println("&");

else System.out.println("$");

**\***

14. if(a++ > b++ || a-- > 0)

c++;

else c--;

System.out.println(a+" "+b+" "+c);

**1 3 4**

15. if(a<b){

System.out.println("####");

System.out.println("\*\*\*\*");

}

else

System.out.println("&&&&");

**####**

**\*\*\*\***

16. if (true || !(false) && true || false || true && false)

System.out.println("#\*#");

**#\*#**

**Write if statements for the following problems. Use meaningful variable names.**

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

If (angle ==2 90) {

System.out.println(“right angle”);

} else {

System.out.println(“not a right angle”);

}

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

if (|temp1 - temp2| > 2.3) {

newVariable = (temp1 - temp2) \* factor

}

19. 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.

If (credits >= 122) {

System.out.println(“Congrats! You are ready to graduate”);

}

20. Write the java statement that assigns 1 to x if y is greater than 0.

If (y > 0) {

x = 1;

}

21. Suppose that score is a variable of type double. Write the java statement that increases the score by 5 marks if score is between 80 and 90.

if ( 90 >= score >= 80) {

score += 5;

}

22. Rewrite in Java the following statement without using the NOT (!) operator: item = !( (i<10) | | (v>=50) ).

Item =( i> 10 || v<=50);

23. Writwe a java statement that prints true if x is an odd number and positive.

if ((number%2 = 1) > 0) {

System.out.println(“true”);

}

24. Write a java statement that prints true if both x and y are positive numbers.

If (x > 0 & y > 0) {

System.out.println(“True”);

}

25. Write a java statement that prints true if x and y have the same sign (-/+).

If x >= 0 & y >= 0 {

System.out.println(“True”);

If else x <= 0 & y <= 0 {

System.out.println(“False);

26. Two programs are equivalent if given the same input they produce the same output. Which of the following programs are equivalent? Why?

// Program A

import java.util.Scanner;

class TestPositive {

public static void main(String [] args) {

Scanner S = new Scanner(System.in);

System.out.print(“Enter a value: ”);

int x = S.nextInt();

if (x > 0) {

System.out.println(“The value is positive:”);

}

else {

if (x < 0) {

System.out.println(“The value is negative:”);

}

else {

System.out.println(“The value is zero:”);

}

}

System.out.println(“Good Bye!”);

}

}

// Program B

import java.util.Scanner;

class TestPositive {

public static void main(String [] args) {

Scanner S = new Scanner(System.in);

System.out.print(“Enter a value: ”);

int x = S.nextInt();

if (x > 0) {

System.out.println(“The value is positive:”);

}

if (x < 0) {

System.out.println(“The value is negative:”);

}

else {

System.out.println(“The value is zero:”);

}

System.out.println(“Good Bye!”);

}

}

// Program C

import java.util.Scanner;

class TestPositive {

public static void main(String [] args) {

Scanner S = new Scanner(System.in);

System.out.print(“Enter a value: ”);

int x = S.nextInt();

if (x > 0) {

System.out.println(“The value is positive:”);

}

if (x < 0) {

System.out.println(“The value is negative:”);

}

if (x ==0) {

System.out.println(“The value is zero:”);

}

System.out.println(“Good Bye!”);

}

}

A & C