Sample java questions for quizzes

What does the each of following code sample output?

1. double x = 4.5;
   int y = (int)x * 2;
   System.out.println("Value of y: " + y);

2. int x = 5;
   int y = x++ * 2;
   System.out.println(y);

3. int x = 6;
   int y = x++ + ++x;
   System.out.println("y = " + y);

4. int a = 2;
   int b = 8;
   boolean result = (a < b) && (b % a == 0);
   System.out.println(result);

5. int x = 7;
   int y = x + x++ - x--;
   System.out.println("Value of y: " + y);

6. int x = 1;
   int y = 1;
   boolean result = (x++ == y);
   System.out.println(result);

7. int x = 3;
   x *= x + 2;
   System.out.println("Result: " + x);

8. int a = 8;
   int b = 3;
   double c = a / (double)b + b * a / 5.0;
   System.out.println(c);

9.
```java
boolean a = true;
boolean b = false;
boolean result = (a || b) && !(a && b);
System.out.println(result);
```

10.
```java
int x = 5;
int y = 7;
int z = x++ * --y / 2 + y % x;
System.out.println(z);
```

11.
```java
int a = 10;
int b = a++;
int c = ++b * a;
System.out.println(c);
```

12.
```java
int x = 12;
int y = 5;
double result = (double)x / y + y % x;
System.out.println(result);
```

13.
```java
int a = 4;
int b = 3;
int c = 5;
int result = a + b * c - b % c;
System.out.println(result);
```

14.
```java
int x = 7;
int y = x++ - --x * x++ / 2;
System.out.println(y);
```

15.
```java
int x = 5;
int y = 3;
double result = (x++ + y) / 2.0 + x;
System.out.println(result);
```

16.
```java
Scanner scanner = new Scanner(System.in);
System.out.print("Enter the quantity of items: ");
int quantity = scanner.nextInt();
```

```java
if (quantity >= 10)
    System.out.println("You qualify for a bulk discount!");

else
    System.out.println("You do not qualify for a bulk discount.");
    int additionalItems = 10 - quantity;
    System.out.println("You need to purchase " + additionalItems + " more items to qualify.");
```

What will be the output if the user enters:

a. quantity = 8
b. quantity = 15