Introduction to Java
Exercise Packet #1

Evaluate the following expressions write the final value of the variable.

	Code	Final value of the variable(s)

1	int x = 5;
	x = x + 7;
	x = 2 * x - 1;	

2	int z;
	z = 40;
	z = 30;	

3	int a = 6, b = 8;
	a = b;
	b = a;	

4	int num88 = 10;
	num88 = num88 + 5;
	num88 = 6;
	num88 = num88 + 7;	

5	double pear = 1.5; pear = 2 * pear;	
6	double d = 2.3; d = 5.0 + d / 10.0;	
7	double num2, num1 = 4; num2 = (num1 + 6) / 2 + 3;	

There are errors in the code below. Explain.

8	int g; g = g + 6;	

9	int apples = 12;
	apples - 4 = apples;
	apples = apples + 4;	

Below are listed possible variable names. Circle Valid if the name is allowed and Invalid if the name is not allowed.

10	good_work	Valid	Invalid
11	number17	Valid	Invalid
12	7days	Valid	Invalid
13	hot dog	Valid	Invalid
14	double	Valid	Invalid

Evaluate the following expressions. There are no errors in the following code

	Code	Final value of the variable(s)
15	int x = 20 / 7 + 3;	x =
16	double z = 6 - 30 / 6.0;	z =
17	double abc = 70 / 8 + 2.0;	abc =
18	double def = (6.0 + 4) / 100;	def =

19	double zed = 5.9;
	int x = (int) zed;
	zed = 2 * zed;
		Hint. An assignment statement changes only the value of the variable on the left side.
		
		zed = x =

20	double you = -13.9; double why = (int) (you - 0.5);	you = why =

21	int num = 5;
	num++;
	num++;
		num =

22	int value = 0; value--;	value =
23	double h = 10; h += 5.1;	h =
24	int num = 23; num -= 5;	num =

25. How many numeric literals are in the code to the right?
 	
26. What is final value of x?
	double x = 6;
	x *= 0.3;
	x = 5 / 4;

Evaluate the following expressions and write the final value of the variable.
Write "ERROR" next to the one problem that contains an error.

	Code	Final value of the variable(s)
27	int n2 = 8; n2 = (int) (n2 + 1.7);	
28	double tree = 11; int branch = 3 + tree;	

29	int num1 = 12;
	num1 += 5;
	num1 = num1 / 3;	

30	double num3 = 11.8; num3 = 11.1 + num3/ 10;	

31. Circle the one invalid variable name: first_name   BIG   x8   24hours

32. What should the name of the file be that contains this code?
 	
33. How many assignments statements are in this code?
 	
34. If the user enters "8" when asked for a number, what is displayed?
	``java
	import java.util.Scanner;
	
	public class Quiz {
	    public static void main(String [] args) {
	        int z;
	        Scanner in;
	        in = new Scanner(System.in);
	
	        System.out.println("Enter a number: ");
	        z = in.nextInt();
	        z = 4 * z + 1;
	        z = 2;
	        System.out.println("z is " + z);
	    }
	}
	``

If the code contains an error, write "error."

35. What is displayed?	```java
	int x = 9;
	int y = 4;
	int z = 5;
	x = z;
	y = x;
	z = y;
	System.out.println(x + ", " + y + ", " + z);
	``

36. What is the final value of w?	```java
	double w;
	w = 8;
	11 = w;
	``

37. What is the final value of hum?	```java
	int hum;
	hum = 77 / 10;
	``

38. What is the final value of drum?	```java
	double drum;
	drum = 26 / 10;
	``

39. What is the final value of somethingthatrhymeswithum?	```java
	int somethingthatrhymeswithum;
	somethingthatrhymeswithum = (int) 42.9;
	``

40. What is displayed?	```java
	double z = 5;
	z = z + 1.5;
	System.out.println(z);
	z = z + 10.0;
	``

41. What is the final value of n?	```java
	int n;
	n = n + 6;
	``

42. What is the final value of h?	```java
	int h = 12;
	h = h / 2.0;
	``

43. What is the final value of ez?	```java
	double ez;
	ez = 4.0 + 8.0 / 2 + 2;
	``

44. What is displayed?	```java
	int k = 15;
	k += 4;
	k--;
	System.out.println(k);
	``

45. How many numeric literals are in this code?
 	
46. What is displayed?
	int x = 8;
	x = 6 + x / 2 - 1;
	System.out.println(x);

47.   The program below should calculate and display the average of two numbers. Complete the code. If the user enters 3 and 4, the output should be "The average is 3.5"

import java.util.Scanner;

public class Tester{
    public static void main(String [] args) {
        Scanner get = new Scanner(System.in);
        System.out.println("Enter #1 ");
        int n1 = get.nextInt();
        System.out. println("Enter #2 ");
        int n2 = get.nextInt();

_____

        System.out.println(_____);
    }
}

> You can get this correct by using one line or both.

48.   The program below should calculate and display the final price of an item. The user enters the original price and then the discount (as a decimal).
       For example, if the user enters "10" for the original price and ".2" for the discount (meaning 20%), the output should be "The final price is 8.0 dollars."

import java.util.Scanner;

public class Tester{
    public static void main(String [] args) {
        Scanner get = new Scanner(System.in);
        System.out. println("What's the original cost? ");
        double cost = get.nextDouble();
        System.out. println("What's the discount? ");
        double discount = get.nextDouble();

_____

_____

_____

        System.out.println(_____);
    }
}

> You do not have to use all the blank lines to get this correct.