

Problem 2

What will the value of "X" be after the following code executes?

```
Int a=10, b=20, x;  
x=a+b;    30  
a=b;      20  
X=x+a+b;  30+20+20    Answer: 70
```

```
x=10;  
x=2*x;  
x++;    Answer: 21
```

```
int a=5, b=5, x=10;  
x=x+a+b;  10+5+5  
x=x+a+b;  20+5+5    Answer: 30
```

```
int a, x=10;  
a=x++;  
x=a+x;  
  
Answer: 21
```

```
int a, x=10;  
a=++x;  
x=a+x;  
  
Answer: 22
```

Problem 4

Write a java program that calculates the area, and the perimeter of a circle. The radius of the circle is an integer number given by the user.

The output of the program should appear as the following form

Area and Perimeter

Enter the Radius = **10**

Area = **314**

Perimeter = **62.8**

```
int r;
```

```
double a,p;
```

```
System.out.print("Enter the radius ");
```

```
r=scan.nextInt();
```

```
a=3.14*r*r;
```

```
p=2*3.14*r;
```

```
System.out.println();
```

```
System.out.println(a);
```

```
System.out.println("area = " + a );
```

```
System.out.println("perimeter = " + p);
```

Problem 5

Write a java program that enters 2 integer numbers by the user and then calculates and displays their square and cube value (a a² a³) on a separate line as shown in the simple below:

Input	output
5	5 25 125
3	3 9 27

```
int a,b;
```

```
System.out.println("Enter 2 numbers ");
```

```
a=scan.nextInt();
```

```
b=scan.nextInt();
```

```
System.out.println (a + " " + (a*a) + " " + (a*a*a));
```

```
System.out.println(b + " " + (b*b) + " " + (b*b*b));
```

Problem 6

Write a java program that enters 2 integer numbers by the user, the program should calculate and display their sum if they are equals, and their double if they are different.

```
int a, b;
    System.out.println("Enter 2 numbers ");
    a=scan.nextInt();
    b=scan.nextInt();

    if(a==b) {
        System.out.println("sum = " + (a+b));
    }
    else {
        System.out.println("sum = " + (2*(a+b)));
    }
}
```

Problem 8

Write a java program that enters three integers and determines if one of the integers is the midpoint between the other two integers; that is, if one integer is exactly halfway between them.

Your program should display "No midpoint" if no such midpoint relationship exists otherwise display the midpoint. The integers could be passed in any order; the midpoint could be the 1st, 2nd, or 3rd.

Example

1 2 3	2
6 4 8	6
20 30 10	10 20
7 9 2	No midpoint

Int a, b, c, x;

System.out.print ("Enter 3 numbers");

a=scan.nextInt();

b=scan.nextInt();

c=scan.nextInt();

x=(a+b+c)/3

if(a==x) {sopln(a) }

Else if (b==x) {sopln(b) }

Else if (c==x) {sopln(c) }

Else {sopln("No midpoint") }

Problem 9

Write a java program that enters 3 integer numbers by the user, and displays the maximum value of them.

```
int a, b, c;
System.out.println("Enter 3 numbers");
a=scan.nextInt();
b=scan.nextInt();
c=scan.nextInt();

if(a>=b && a>=c) System.out.println( a);
else if (b>=a && b>=c) System.out.println(b);
else System.out.println(c);
```

Problem 10

Write a java program that enters an integer number and then displays if the number is ODD or EVEN.

The output of the program should appear as the following form

```
Enter a number: 10
```

```
10 is even
```

```
int a;
```

```
System.out.println("Enter a number ");
```

```
a=scan.nextInt();
```

```
if(a%2==0) System.out.println(a + " is even");
```

```
else System.out.println(a + " is odd");
```