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ROLL NUMBER:15730

SECTION:A

SEMESTER:2ND FINAL

Q1ANSWER)

```
1 import java.util.Scanner;
2 public class Odd_Even
3 {
4     public static void main(String[] args)
5     {
6         int n;
7         Scanner s = new Scanner(System.in);
8         System.out.print("Enter the number you want to check:");
9         n = s.nextInt();
10        if(n % 2 == 0)
11        {
12            System.out.println("The given number "+n+" is Even ");
13        }
14        else
15        {
16            System.out.println("The given number "+n+" is Odd ");
17        }
18    }
19 }
```

Execute Mode, Version, Inputs & Arguments

JDK 11.0.4

Interactive

CommandLine Arguments

 Execute



Result

compiled and executed in 10.967 sec(s)

```
Enter the number you want to check:165
The given number 165 is Odd
```

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Q2ANSWER)

```
1 public class ComplexNumber{
2     //for real and imaginary parts of complex numbers
3     double real, img;
4
5     //constructor to initialize the complex number
6     ComplexNumber(double r, double i){
7         this.real = r;
8         this.img = i;
9     }
10
11     public static ComplexNumber sum(ComplexNumber c1, ComplexNumber c2)
12     {
13         //creating a temporary complex number to hold the sum of two numbers
14         ComplexNumber temp = new ComplexNumber(0, 0);
15
16         temp.real = c1.real + c2.real;
17         temp.img = c1.img + c2.img;
18
19         //returning the output complex number
20         return temp;
21     }
22     public static void main(String args[] {
23         ComplexNumber c1 = new ComplexNumber(5.5, 4);
24         ComplexNumber c2 = new ComplexNumber(1.2, 3.5);
25         ComplexNumber temp = sum(c1, c2);
26         System.out.printf("Sum is: "+ temp.real+" + "+ temp.img +"i");
27     }
28 }
```

JDK 11.0.4

Interactive

CommandLine Arguments

 Execute



Result

compiled and executed in 0.99 sec(s)

```
Sum is: 6.7 + 7.5i
```

.....

Q3ANSWER)

```
1 import java.util.Scanner;
2 public class Demo {
3
4     public static void main(String[] args) {
5
6         int year;
7         Scanner scan = new Scanner(System.in);
8         System.out.println("Enter any Year:");
9         year = scan.nextInt();
10        scan.close();
11        boolean isLeap = false;
12
13        if(year % 4 == 0)
14        {
15            if( year % 100 == 0)
16            {
17                if ( year % 400 == 0)
18                    isLeap = true;
19                else
20                    isLeap = false;
21            }
22            else
23                isLeap = true;
24        }
25        else {
26            isLeap = false;
27        }
28
29        if(isLeap==true)
30            System.out.println(year + " is a Leap Year.");
31        else
32            System.out.println(year + " is not a Leap Year.");
33    }
34 }
```

JDK 11.0.4

Interactive

CommandLine Arguments

 Execute



Result

compiled and executed in 10.934 sec(s)

```
Enter any Year:
2020
2020 is a Leap Year.
|
```

.....

Q4ANSWER)

```
1
2 import java.util.Scanner;
3
4 public class JavaProgram
5 {
6     public static void main(String args[])
7     {
8         char ch;
9         Scanner scan = new Scanner(System.in);
10
11         System.out.print("Enter an Alphabet : ");
12         ch = scan.next().charAt(0);
13
14         if(ch=='a' || ch=='A' || ch=='e' || ch=='E' ||
15            ch=='i' || ch=='I' || ch=='o' || ch=='O' ||
16            ch=='u' || ch=='U')
17         {
18             System.out.print("This is a Vowel");
19         }
20         else
21         {
22             System.out.print("This is not a Vowel");
23         }
24     }
25 }
```

JDK11.0.4

Interactive

CommandLine Arguments

 Execute



Result

compiled and executed in 2.962 secs)

```
Enter an Alphabet : a
This is a Vowel
|
```

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Q5ANSWER)

```
1 import java.util.Scanner;
2 public class PowerOfNumber {
3     public static void main(String args[]){
4         Scanner sc = new Scanner(System.in);
5         System.out.println("Enter the base number ::");
6         int base = sc.nextInt();
7         int temp = base;
8         System.out.println("Enter the exponent number ::");
9         int exp = sc.nextInt();
10
11         for (int i=1; i<exp; i++){
12             temp = temp*temp;
13         }
14         System.out.println("Result of "+base+" power "+exp+" is "+temp);
15     }
16 }
```

Execute Mode, Version, Inputs & Arguments

JDK 11.04

Interactive

CommandLine Arguments

Execute



Result

compiled and executed in 8.514 sec(s)

```
Enter the base number ::
12
Enter the exponent number ::
2
Result of 12 power 2 is 144
|
```

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