

- ② WAP that asks the current price of dozens of mangoes in the market, then asks the no. of mangoes the customer wants to buy. Calculate the total price.

```
import java.util.Scanner;  
public class mango-price {  
    public static void main (String[] args) {  
        Scanner sc = new Scanner (System.in);  
        double price;  
        int n;
```

```
        System.out.println (" Input the dozen price of mango:");  
        price = sc.nextInt();
```

```
        System.out.println (" Enter the num of mangoes:");  
        n = sc.nextInt();
```

```
        double one-mango = price/n*12;  
        double total = one-mango * n;
```

```
        System.out.println (" Total price:" + "Rs." + total);
```

OUTPUT

Input the dozen price of mango = Rs. 120
Enter the num of mango = 10

Total price ! Rs. 100

4) WAP to perform a following operations:

i) Convert feet to inch

ii) Convert kg to pounds

```
import java.util.Scanner;
```

```
class conversion {
```

```
    public static void main (String[] args) {
```

```
        double ft = 3.5, kg = 15;
```

```
        double inch = ft * 12;
```

```
        double lb = kg * 2.205;
```

```
        System.out.println ("The total inch & pounds are :  
                             + inch + " , " + lb");
```

```
    }
```

```
}
```

OUTPUT

The total inch & pounds are : 42^{inch}, 33.075^{kg}

③ WAP that prints the reverse of a 3-digits numbers!

```
import java.util.Scanner;
```

```
class reverse {
```

```
    public static void main (String [] args) {
```

```
        Scanner sc = new Scanner (System.in);
```

```
        int rev = 0;
```

```
        System.out.println("Enter the 3-Digits num: ");
```

```
        int n = sc.nextInt();
```

```
        while (n != 0) {
```

```
            int r = n % 10;
```

```
            rev = r + rev * 10;
```

```
            n = n / 10;
```

```
        }
```

```
        System.out.println("Reverse num: " + rev);
```

Output

Enter the 3-Digits num: 123

Reverse num: 321

~~23rd May~~
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5) WAP that takes n integer input from the user & print only those number which are divisible by m.

```
import java.util.Scanner;
```

```
class division {
```

```
    public static void main (String [] args) {  
        int n, m, i;  
        Scanner sc = new Scanner (System.in);
```

```
        System.out.println("Enter the integer:");
```

```
        n = sc.nextInt();
```

```
        System.out.println("Enter the num to divide:");
```

```
        m = sc.nextInt();
```

```
        for (i = m; i <= n; i++) {
```

```
            if (m % i == 0) {
```

```
                System.out.println("The numbers are: " + i);
```

```
            }
```

```
        }
```

OUTPUT

Enter the integer: n = 20

Enter the num to divide = 5

The numbers are: 5, 10, 20.

① WAP to take n integer input & print the sum of all the inputs.

Level 1)

// Java Program

```
import java.util.Scanner;
```

```
class Sum
```

```
{  
    public static void main (String [] args) {
```

```
        Scanner sc = new Scanner (System.in);
```

```
        int n, i, num;
```

```
        System.out.println("Enter the input number:");
```

```
        n = sc.nextInt();
```

```
        for (i = 1; i <= n; i++) {
```

```
            num = n + i;
```

```
        }
```

```
        System.out.println("Sum: " + num);
```

```
    }
```

```
}
```

Output

Enter the num:

① Print multiplication table of n.

```
import java.util.Scanner;
class multiplicationTable {
    public static void main (String[] args) {
        int n, i;
        Scanner sc = new Scanner (System.in);

        System.out.print (" Input the number : ");
        n = sc.nextInt();

        for (i = 1; i <= 10; i++) {
            int num = n * i;
            System.out.println (n + "*" + i + "=" + num);
            System.out.println (" Table : " + num)
        }
    }
}
```

OUTPUT

Input the number : 5

5 * 1 = 5	5 * 6 = 30
5 * 2 = 10	5 * 7 = 35
5 * 3 = 15	5 * 8 = 40
5 * 4 = 20	5 * 9 = 45
5 * 5 = 25	5 * 10 = 50

② Check whether the num is prime or not.

```
import java.util.Scanner;
public class primeorcomposite {
    public static void main (String [] args) {
        Scanner sc = new Scanner (System.in);
        int n, c, i = 0;
        System.out.print ("Enter the number:");
        n = sc.nextInt();
        sc.close();
        int m = n;
        for (i = 1; i <= m/2; i++) {
            if (m % i == 0) {
                c++;
            }
        }
        if (c > 1) {
            System.out.println (n + " is prime.");
        } else {
            System.out.println (n + " is composite.");
        }
    }
}
```

③ Checking vowels or consonant.

```
import java.util.Scanner;  
public class vowelorconsonant {  
    public static void main (String[] args) {  
        Scanner sc = new Scanner (System.in);
```

// Taking Character Input

```
        System.out.print ("Enter the character in lowercase:");  
        char ch = sc.next().charAt(0);  
        sc.close();
```

```
        if (ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u')  
        {
```

```
            System.out.println (ch + " is a vowel.");
```

```
        } else {
```

```
            System.out.println (ch + " is a consonant.");
```

```
        }
```

OUTPUT

```
Enter the character in lowercase: b
```

```
b is a consonant.
```

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```
class Escaped {
    public static void main (String[] args) {
        System.out.println ("Hello\n World");
        System.out.println (" Hello\t World");
        System.out.println (" This is a backslash \\");
        System.out.println (" Hello\ World");
        System.out.println (" \" Hello World \"");
        System.out.println (" Hello\f World");
        System.out.println (" Octal 101 is char: \101");
        System.out.println (" Unicode 0041 is a char: \u0041");
    }
}
```

Output

Hello
World
Hello World
This is a backslash \
Hello \ World
Hello ^ World
Octal 101 is char: A
Unicode 0041 is char: A

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⑨ WAP to find the smallest number among 3 numbers.

```
import java.util.Scanner;
```

```
class small-num{
```

```
    public static void main (String [] args){
```

```
        Scanner sc = new Scanner(System.in);
```

```
        System.out.println("Enter any three numbers:");
```

```
        int a = sc.nextInt();
```

```
        int b = sc.nextInt();
```

```
        int c = sc.nextInt();
```

```
        sc.close();
```

```
        System.out.print(a < b && a < c)? "The smallest number  
is " + a
```

```
: (b < c && b < a)? "The smallest number is " + b
```

```
: "The smallest number is " + c);
```

```
}
```

Output

Enter any three numbers: 5 7 3

The smallest number is 3.

Source code

①

```

import java.util.Scanner;
public class pattern {
    public static void main (String[] args) {
        Scanner sc = new Scanner (System.in);
        int i, j;

```

```

        for (i=1; i<=5; i++) {
            for (j=1; j<=i; j++) {
                System.out.print (j);

```

```

            }

```

```

            System.out.print ("\n");

```

```

        }

```

```

    }

```

```

}

```

```

1
1 2
1 2 3
1 2 3 4
1 2 3 4 5

```

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②

```
5
4 5
3 4 5
2 3 4 5
1 2 3 4 5
```

```
import java.util.Scanner;
public class pattern {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int i, j;
```

```
        for (i = 5; i >= 1; i--) {
            for (j = i; j <= 5; j++) {
                System.out.print(j);
```

```
            }
```

```
            System.out.print("\n");
        }
```

```
}
```

③

```

import java.util.Scanner;
public class pattern {
    public static void main (String[] args) {
        for (int i = 1; i <= 5; i++) {
            for (int j = 1; j <= i; j++) {
                System.out.print("1");
            }
            System.out.println();
        }
    }
}

```

```

1
1 2
1 2 3
1 2 3 4
1 2 3 4 5

```

47) Make class 'Rectangle' with attributes length & breadth. The class contains methods computeArea & displayArea. Write a program with main method that creates two objects of rectangle class & find their areas & display area of larger rectangle.

```
import java.util.Scanner;

public class Rectangle {
    double l, b;

    double computeArea() {
        return l * b;
    }

    void displayArea() {
        System.out.println("Area: " + computeArea());
    }
}
```

// Main class

```
public static void main (String[] args) {
    Scanner sc = new Scanner (System.in);
```

```
    Rectangle r = new Rectangle();
```

```
    Rectangle r1 = new Rectangle();
```

} Obj creation

```
System.out.println("Enter the length & breadth of 1st  
rectangle: ");
```

```
r.l = sc.nextDouble();  
r.b = sc.nextDouble();
```

```
Scout ("Enter the length & breadth of 2nd  
rectangle: ");
```

```
r1.l = sc.nextDouble();  
r1.b = sc.nextDouble();
```

```
double area1 = r.computeArea();  
double area2 = r1.computeArea();
```

// Comparing the area of 2 rectangle

```
if (area1 > area2) {
```

```
Scout ("Area 1 is bigger" + displayArea());
```

```
} else {
```

```
Scout ("Area 2 is bigger" + displayArea());
```

```
}
```

48) Create a class Number with 3 integer instance variables x, y & z. The class will have one constructor to initialize instance variables. The class will contain method getMax() method that will return the largest number. Create a class Number Demo with main method that will create an object of Number & will print the largest number.

```
class Number {  
    int x, y, z;  
  
    Number (int x, int y, int z) {  
        this.x = x;  
        this.y = y;  
        this.z = z;  
    }  
  
    int getMax() {  
        if (x >= y && x >= z) {  
            return x;  
        } else if (y >= x && y >= z) {  
            return y;  
        }  
        else {  
            return z;  
        }  
    }  
}
```

8 8

class NumberDemo {

public static void main (String [] args) {

Number num = new Number (10, 20, 30);

System.out.println ("The max number is: " + num.getMax());

}

}



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60) Create a ^{class} abstract Student with instance variables roll no & two method to read & display the roll no. Then, create another class Test that inherits class Student, consisting of its own instance variables to hold the marks of 2 subjects & also methods to read & display the marks. Finally, create another class Result which inherits class Test. It also has its own instance variable total to hold off two marks scored by the student.

```
public class Student {  
    int roll;  
    void readRoll (int r) {  
        roll = r;  
    }  
    void displayRoll () {  
        System.out.println("The roll number is " + roll);  
    }  
}  
  
class Test extends Student {  
    double eng, es;  
    void readMarks (double e, double c) {  
        eng = e;  
        es = c;  
    }  
}
```

```
void displayMarks () {
```

```
    cout ("The marks in english = ." + eng);
```

```
    cout ("Marks in computer." + cs);
```

```
}
```

```
}
```

```
class Result extends Test {  
    double total;
```

```
    void CalculateTotal () {  
        total = eng + cs;
```

```
}
```

```
void displayTotal () {
```

```
    cout ("The total marks are: " + total);
```

```
}
```

```
public static void main (String [] args) {
```

```
    Result r = new Result ();
```

```
    r.readRoll (s);
```

```
    r.displayRoll ();
```

```
    r.readMarks (85.5, 90);
```

```
    r.displayMarks ();
```