 Write a Program to display the sum of digits of a given number.

package SimplerPrograms;

import java.util.Scanner;

public class SumofDigitsUsingWhile {

private static Scanner sc;

public static void main(String[] args) {

int Number, Reminder, Sum = 0;

sc = new Scanner(System.in);

System.out.println("Please Enter any Number: ");

Number = sc.nextInt();

while(Number > 0) {

Reminder = Number % 10;

Sum = Sum+ Reminder;

Number = Number / 10;

}

System.out.format("Sum of the digits of Given Number = %d", Sum);

}

}

Write a Program to display whether a given number is palindrome?

**import** java.util.Scanner;

**class** Palindrome

{

**public** **static** **void** main(String[] args)

{

**int** a,**no**,b,temp=0;

Scanner s=**new** Scanner(System.**in**);

System.**out**.println("Enter any num: ");

**no**=s.nextInt();

b=**no**;

**while**(**no**>0)

{

a=**no**%10;

**no**=**no**/10;

temp=temp\*10+a;

}

**if**(temp==b)

{

System.**out**.println("Palindrome");

}

**else**

{

System.**out**.println("not Palindrome");

}

}

}

. Write a Program to check whether a given number is armstrong or not?

**import** java.util.Scanner;

**class** Armstrong

{

**public** **static** **void** main(String[] args)

{

**int** arm=0,a,b,c,d,**no**;

Scanner s=**new** Scanner(System.**in**);

System.**out**.println("Enter any num :");

**no**=s.nextInt();

d=**no**;

**while**(**no**>0)

{

a=**no**%10;

**no**=**no**/10;

arm=arm+a\*a\*a;

}

**if**(arm==d)

{

System.**out**.println("Armstrong :");

}

**else**

{

System.**out**.println("not Armstrong");

}

}

}

Write a Program to display all the armstrong number from 100 to 500?

1. **public** **class** Armstrong
2. {
3. **public** **static** **void** main(String[] args)
4. {
5. **int** n, count = 0, a, b, c, sum = 0;
6. System.out.print("Armstrong numbers from 1 to 1000:");
7. **for**(**int** i = 1; i <= 1000; i++)
8. {
9. n = i;
10. **while**(n > 0)
11. {
12. b = n % 10;
13. sum = sum + (b \* b \* b);
14. n = n / 10;
15. }
16. **if**(sum == i)
17. {
18. System.out.print(i+" ");
19. }
20. sum = 0;
21. }
22. }
23. }

Write a program to sort a given 10 integers.

1. **import** java.util.Scanner;
2. **public** **class** Ascending \_Order
3. {
4. **public** **static** **void** main(String[] args)
5. {
6. **int** n, temp;
7. Scanner s = **new** Scanner(System.in);
8. System.out.print("Enter no. of elements you want in array:");
9. n = s.nextInt();
10. **int** a[] = **new** **int**[n];
11. System.out.println("Enter all the elements:");
12. **for** (**int** i = 0; i < n; i++)
13. {
14. a[i] = s.nextInt();
15. }
16. **for** (**int** i = 0; i < n; i++)
17. {
18. **for** (**int** j = i + 1; j < n; j++)
19. {
20. **if** (a[i] > a[j])
21. {
22. temp = a[i];
23. a[i] = a[j];
24. a[j] = temp;
25. }
26. }
27. }
28. System.out.print("Ascending Order:");
29. **for** (**int** i = 0; i < n - 1; i++)
30. {
31. System.out.print(a[i] + ",");
32. }
33. System.out.print(a[n - 1]);
34. }
35. }

Write a (2X2) multi dimensional array and do the matrix addition program.

**import** java.util.Scanner;

**class** AddTwoMatrix

{

**public** **static** **void** main(String args[])

{

**int** m, n, c, d;

Scanner in = **new** Scanner(System.in);

System.out.println("Enter the number of rows and columns of matrix");

m = in.nextInt();

n = in.nextInt();

**int** first[][] = **new** **int**[m][n];

**int** second[][] = **new** **int**[m][n];

**int** sum[][] = **new** **int**[m][n];

System.out.println("Enter the elements of first matrix");

**for** ( c = 0 ; c < m ; c++ )

**for** ( d = 0 ; d < n ; d++ )

first[c][d] = in.nextInt();

System.out.println("Enter the elements of second matrix");

**for** ( c = 0 ; c < m ; c++ )

**for** ( d = 0 ; d < n ; d++ )

second[c][d] = in.nextInt();

**for** ( c = 0 ; c < m ; c++ )

**for** ( d = 0 ; d < n ; d++ )

sum[c][d] = first[c][d] + second[c][d]; *//replace '+' with '-' to subtract matrices*

System.out.println("Sum of entered matrices:-");

**for** ( c = 0 ; c < m ; c++ )

{

**for** ( d = 0 ; d < n ; d++ )

System.out.print(sum[c][d]+"**\t**");

System.out.println();

}

}

}

 Write a (2X2) multi dimensional array and do the matrix multiplication Program.

**import** java.util.Scanner;

**class** MatrixMultiplication

{

**public** **static** **void** main(String args[])

{

**int** m, n, p, q, sum = 0, c, d, k;

Scanner in = **new** Scanner(System.in);

System.out.println("Enter the number of rows and columns of first matrix");

m = in.nextInt();

n = in.nextInt();

**int** first[][] = **new** **int**[m][n];

System.out.println("Enter the elements of first matrix");

**for** ( c = 0 ; c < m ; c++ )

**for** ( d = 0 ; d < n ; d++ )

first[c][d] = in.nextInt();

System.out.println("Enter the number of rows and columns of second matrix");

p = in.nextInt();

q = in.nextInt();

**if** ( n != p )

System.out.println("Matrices with entered orders can't be multiplied with each other.");

**else**

{

**int** second[][] = **new** **int**[p][q];

**int** multiply[][] = **new** **int**[m][q];

System.out.println("Enter the elements of second matrix");

**for** ( c = 0 ; c < p ; c++ )

**for** ( d = 0 ; d < q ; d++ )

second[c][d] = in.nextInt();

**for** ( c = 0 ; c < m ; c++ )

{

**for** ( d = 0 ; d < q ; d++ )

{

**for** ( k = 0 ; k < p ; k++ )

{

sum = sum + first[c][k]\*second[k][d];

}

multiply[c][d] = sum;

sum = 0;

}

}

System.out.println("Product of entered matrices:-");

**for** ( c = 0 ; c < m ; c++ )

{

**for** ( d = 0 ; d < q ; d++ )

System.out.print(multiply[c][d]+"**\t**");

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

}

}

}

}