
// 25. Write a Java program to print multiplication table of any number

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```
import java.util.Scanner;
public class Day12 {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number to print its multiplication table: ");
      int number=scan.nextInt();
      for(int i=1;i<=10;i++){
       int  product= number*i;
         System.out.println(number+" X "+i+" = "+product);
      }
   }
}
```

// 26. Write a Java program to count number of digits in a number.

```
import java.util.Scanner;
public class Day12a {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number to find number of digits: ");
      int number=scan.nextInt();
      int count=0;
      while(number>0){
         number/=10;
         count+=1;
      }
      System.out.println("total digits: "+count);
   }
}
```

// 27. Write a Java program to find first and last digit of a number.

```
import java.util.Scanner;
public class Day12b {
   public static void main(String[] args) {
      Scanner scan = new Scanner(System.in);
      System.out.println("Enter a number to find first and last digit: ");
      int number = scan.nextInt();
      int lastdigit = number % 10;
      int digit = 0;
      while (number > 0) {
         digit = number % 10;
         number /= 10;
      }
      if (digit < 10) {
         System.out.println("first digit: " + digit);
      }
      System.out.println("Last digit: "+lastdigit);
   }
   }
```

// 28. Write a Java program to find sum of first and last digit of a number.

```
import java.util.Scanner;
public class Day12c {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number to find sum of its first and last numbers: ");
      int number=scan.nextInt();
      int digit=0;
      int lastdigit=number%10;
      while(number>0){
         digit=number%10;
         number/=10;
      }
      if(digit<10){
         System.out.println("Sum of first and last digits: "+(lastdigit+digit));
      }
   }
}
```

// 29. Write a Java program to check whether a number is palindrome or not.

```
import java.util.Scanner;
public class Day12d {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number to find if it is palindrome or not: ");
      int number=scan.nextInt();
      int digit=0;
      int temp=number;
      while(number>0){
         digit=digit*10 + number%10;
         number/=10;
      }
      if(digit==temp){
         System.out.println("The given number is palindrome: "+digit);
      }
      else{
         System.out.println("The given number is not a palindrome: "+digit);
      }
   }
}
```

// 30. Write a Java program to calculate sum of digits of a number.

```
import java.util.Scanner;
public class Day12e {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number to print sum of digits: ");
      int number=scan.nextInt();
      int digit=0;
      int sum=0;
      while(number>0){
         digit=number%10;
         number/=10;
         sum+=digit;
      }
      System.out.println("Sum of digits: "+sum);
   }
}
```

// 31. Write a Java program to calculate product of digits of a number.

```
import java.util.Scanner;
public class Day12e {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number to print sum of digits: ");
      int number=scan.nextInt();
      int digit=0;
      int product=1;
      while(number>0){
         digit=number%10;
         number/=10;
         product*=digit;
      }
      System.out.println("Sum of digits: "+product);
   }
}
```

// 32. Write a Java program to enter a number and print its reverse.

```
import java.util.Scanner;
public class Day12f {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number to print reverse: ");
      int number =scan.nextInt();
      int digit=0;
      while(number>0){
         digit=digit*10 + number%10;
         number/=10;
      }
      System.out.println("Reverse of the number: "+digit);
   }
}
```

// 33. Write a Java program to find frequency of each digit in a given integer.

```
import java.util.Scanner;
public class Day12g {
   public static void main(String[] args) {
      Scanner scan = new Scanner(System.in);
      System.out.println("Enter a number to find frequency of each digit: ");
      int number = scan.nextInt();
      int digit = 0;
      int arr[]=new int [10];
      while (number > 0){
         digit=number%10;
         for(int i=0;i<arr.length;i++){
            if(digit==i){
               arr[i]++;
            }
         }
         number/=10;
      }
      for(int i=0;i<arr.length;i++){
         if(arr[i]!=0){
            System.out.println("Frequency of: "+i+" "+arr[i]);
         }
      }
   }
}
```

// 34. Write a Java program to enter a number and print it in words.

```
import java.util.Scanner;
public class Day12h {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number to print in word: ");
      int number=scan.nextInt();
      switch(number){
         case 0:
            System.out.println("Zero");
            break;
         case 1:
            System.out.println("One");
            break;
         case 2:
            System.out.println("Two");
            break;
         case 3:
            System.out.println("Three");
            break;
         case 4:
            System.out.println("Four");
            break;
         case 5:
            System.out.println("Five");
            break;
         case 6:
            System.out.println("Six");
            break;
         case 7:
            System.out.println("Seven");
            break;
         case 8:
            System.out.println("Eight");
            break;
         case 9:
            System.out.println("Nine");
            break;

         default:
            System.out.println("Unexpected value: " + number);
      }
   }
}
```

// 35. Write a Java program to print all ASCII character with their values.

```
public class Day12h {
   public static void main(String[] args) {
      System.out.println("ASCII small character with values: ");
      for(char i='a';i<='z';i++){
         System.out.println(i+" "+(int)i);
      }
      System.out.println("ASCII capital character with values: ");
      for(char i='A';i<='Z';i++){
         System.out.println(i+" "+(int)i);
      }
   }
}
```

// 36. Write a Java program to find power of a number using for loop.

```
import java.util.Scanner;
public class Day12h {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number: ");
      int number =scan.nextInt();
      System.out.println("Enter value of power: ");
      int power=scan.nextInt();
      int value=1;
      for(int i =1;i<=power;i++){
         value*=number;
      }
      System.out.println("value is: "+value);
   }
}
```

// 37. Write a Java program to find all factors of a number.

```
import java.util.Scanner;
public class Day12i {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number to find its factors: ");
      int number=scan.nextInt();
      for (int i=1;i<=number/2;i++){
         if(number%i==0){
            System.out.println("Factors of "+number+" are "+i);
         }
      }
   }
}
```

// 37. Write a Java program to find all factors of a number.

```
import java.util.Scanner;
public class Day12i {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      int sum=0;
      System.out.println("Enter a number to find its factors: ");
      int number=scan.nextInt();
      for (int i=1;i<=number/2;i++){
         if(number%i==0){
            sum+=i;
         }
      }
      System.out.println("sum of factors of "+number+" are "+sum);
   }
}
```

// 39. Write a Java program to check whether a number is Prime number or not.

```
import java.util.Scanner;
public class Day12j {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number to check if its prime or not: ");
      int number =scan.nextInt();
      int count=0;
      for(int i=1;i<=number/2;i++){
         if(number%i==0){
            count+=1;
         }
      }
      if(count==1){
         System.out.println("Prime number: "+number);
      }
      else{
         System.out.println("Not a prime number: "+number);
      }
   }
}
```

// 40. Write a Java program to print all Prime numbers between 1 to n.

```
import java.util.Scanner;
public class Day12k {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number to print prime numbers: ");
      int number =scan.nextInt();
      for(int i=1;i<=number;i++){
       int   count=0;
         for(int j=2;j<=i/2;j++){
            if(i%j==0){
count+=1;
break;
            }

         }
         if(count==0){
            System.out.println(i);
         }
      }
   }
}
```

// 41. Write a Java program to find sum of all prime numbers between 1 to n.

```
import java.util.Scanner;
public class Day12k {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number to print prime numbers: ");
      int number =scan.nextInt();
      int sum=0;
      for(int i=1;i<=number;i++){
       int   count=0;
         for(int j=2;j<=i/2;j++){
            if(i%j==0){
count+=1;
break;
            }

         }
         if(count==0){
            sum+=i;
         }
      }
      System.out.println("Sum of prime numbers: "+sum);
   }
}
```

// 42. Write a Java program to find all prime factors of a number.

```
import java.util.Scanner;
public class Day12l {
    public static void main(String[] args) {
        Scanner scan=new Scanner(System.in);
        System.out.println("Enter a number to check prime factors till then: ");
        int number=scan.nextInt();
   for(int i=1;i<=number;i++){
      int count=0;
      for(int j=2;j<=i/2;j++){
if(i%j==0){
   count+=1;
}
      }
      if(count==0&&number%i==0){
         System.out.println(i);
      }
   }
    }
   }
```

// 43. Write a Java program to check whether a number is Armstrong number or not.

```
import java.util.Scanner;
public class Day12m {
   public static void main(String[] args) {
      Scanner scan = new Scanner(System.in);
      System.out.println("Enter a number to check if armstrong: ");
      int number = scan.nextInt();
      int digit = 0;
      int sum = 0;
      int temp=number;
      while (number > 0) {
         digit = number % 10;
sum+=(digit*digit*digit);
         number /= 10;
      }
      if(temp==sum){
         System.out.println("Armstrong : "+sum);
      }
      else{
         System.out.println("Not armstrong : "+sum);
      }
   }
   }
```

// 44. Write a Java program to print all Armstrong numbers between 1 to n.

```
import java.util.Scanner;
public class Day12n {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter stop number: ");
      int number=scan.nextInt();
      for(int i=10;i<=number;i++){
         int sum=0;
         int temp=i;
         while(i>0){
           int digit=i%10;
            sum+=(digit+digit+digit);
            i/=10;
         }
        if(sum==temp){
            System.out.println(i);
         }
      }
   }
}
```

// 45. Write a Java program to check whether a number is Perfect number or not.

```
import java.util.Scanner;
public class Day12o {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number to check perfect: ");
      int number=scan.nextInt();
      int sum=0;
      int temp=number;
      for(int i=1;i<=number/2;i++){
         if(number%i==0){
            sum+=i;
         }
      }
      if(sum==temp){
         System.out.println("perfect");
      }
      else{
         System.out.println("not perfect");
      }
   }
}
```

// 46. Write a Java program to print all Perfect numbers between 1 to n.

```
import java.util.Scanner;
public class Day12p {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number to find all perfect numbers: ");
      int number=scan.nextInt();
      int sum=0;
      int temp=0;
      for(int i=1;i<=number/2;i++){
          temp=i;
         if(number%i==0){
            sum+=i;
         }
      if(sum==temp) {
         System.out.println(i);
      }
      }
   }
}
```

// 47. Write a Java program to check whether a number is Strong number or not.

```
import java.util.Scanner;
public class Day12q {
   public static void main(String[] args) {
      System.out.println("Enter a number to check strong or not: ");
      Scanner scan=new Scanner(System.in);
      int number =scan.nextInt();
      int temp=number;
      int sum=0;
      while(number!=0){
         int digit=number%10;
         int product=1;
         for(int i=digit;i>=1;i--){
            product*=i;
         }
         sum+=product;
         number/=10;
      }
      if(sum==temp){
         System.out.println("strong "+sum);
      }
      else{
         System.out.println("not strong "+sum);
      }
   }
}
```

// 49. Write a Java program to print Fibonacci series up to n terms

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```
import java.util.Scanner;
public class Day12r {
   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter a number: ");
      int number= scan.nextInt();
      int num1=0;
      int num2=1;
      System.out.println(num1);
      System.out.println(num2);
      for(int i=1;i<number;i++){
         int num3=num1+num2;
         System.out.println(num3);
         num1=num2;
         num2=num3;
      }
   }
}
```