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| Q2. A Composite Magic number is a positive integer which is composite as well as a magic number.  Composite number: A composite number is a number which has more than two factors. For example: Factors of 10 are: 1, 2, 5, 10  Magic number: A Magic number is a number in which the eventual sum of the digit is equal to 1. For example: 28 = 2+8=10= 1+0=1   |  | | --- | | import java.util.Scanner;  class Task\_2 {  public static void main(String args[]) {  int n, i, sum = 0, digit;  Scanner sc = new Scanner(System.in);  System.out.println("Enter Starting Number : ");  n = sc.nextInt();  int temp = n;  System.out.print("Factor of " + n + " are : ");  for (i = 1; i <= n; i++) {  if (n % i == 0) {  System.out.print(i + "\t");  }  }  while (temp != 0) {  digit = temp % 10;  sum = sum + digit;  temp = temp / 10;  }  System.out.println("\nSum of digit : " + sum);  int s = 0, d;  while (sum != 0) {  d = sum % 10;  s += d;  sum /= 10;  }  System.out.println("Sum of digit ka sum :" + s);  if (s == 1) {  System.out.println("Magic Number");  }  }  } | |  |   Accept two positive integers 'm' and 'n', where m is less than n. Display the number of composite magic integers that are in the range between m and n (both inclusive) and output them along with frequency, in the format specified below:  Sample Input: m=10 n=100 Output: The composite magic numbers are 10,28,46,55,64,82,91,100 Frequency of composite magic numbers: 8  Sample Input: m=120 n=90 Output: Invalid input   |  | | --- | | import java.util.Scanner;  class Task\_2\_2{  public static void main(String args[]){  Scanner obj=new Scanner(System.in);  System.out.print("m = ");  int m=obj.nextInt();  System.out.print("n= ");  int n=obj.nextInt();  int count=0,digit,sum=0,temp;    if(m<n)  {  System.out.println("The composite magic numbers are : \n");  for(int i=m; i<=n;i++)  {  temp=i;    while (temp != 0)  {  digit = temp % 10;  sum = sum + digit;  temp = temp / 10;  }  int s = 0, d;  while (sum != 0) {  d = sum % 10;  s += d;  sum /= 10;  }    if (s == 1) {  System.out.print(i+"\t");  count++;    }  }  System.out.println("\n\nFrequency of composite magic numbers: "+count + "\n");  }  else  {  System.out.println("Invlid Input");  }    }  } | |  | |
| Q4. A triangular number is formed by the addition of consecutive integers starting with 1. For example, 1 + 2 = 3 1 + 2 + 3 = 6 1 + 2 + 3 + 4 = 10 1 + 2 + 3 + 4 + 5 = 15 Thus, 3, 6, 10, 15, are triangular numbers. Write a program in Java to display all the triangular numbers from 3 to n, taking the value of n as an input.   |  | | --- | | import java.util.Scanner;  class Task\_4{  public static void main(String args[]){  int n;  Scanner shani=new Scanner(System.in);  System.out.printf("Enter Number : ");  n=shani.nextInt();  System.out.println("Triangular Numbers : ");  int sum=1;  for(int i=2;i<=n;i++)  {  sum+=i;  System.out.println(sum);  if(sum==n)  break;  }  }  } | |  | |
| Q5. Armstrong Number Program in Java  Armstrong Number is a positive number if it is equal to the sum of cubes of its digits is called Armstrong number and if its in java, c language, python etc. Examples: 153 is Armstrong, (1\*1\*1)+(5\*5\*5)+(3\*3\*3) = 153sum is not equal to the number then its not a Armstrong number. Armstrong Number Program is very popular   |  | | --- | | // Q5. Armstrong Number Program in Java  import java.util.Scanner;  class Task\_5{  public static void main(String args[]){    int n,sum=0,digit,temp;  Scanner shani=new Scanner(System.in);  System.out.println("Enter Number ");  n=shani.nextInt(); //153  temp=n;  while(n!=0)  {  digit=n%10 ; //digit=3 //digit=5 // digit =1  sum =sum+digit\*digit\*digit; //27 //125 //1  n=n/10 ; //n=15 //n=1 //n=0  }  if(sum==temp)  {  System.out.println("Armstrong Number");  }  else  {  System.out.println("Not Armstrong Number");  }  }  } | |  | |
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