**TO FIND THE NUMBER OF DIGITS:**

**PROGRAM:**

**package armstrongnumber;**

**public class Armstrong {**

**public static int C\_digit(int num) {**

**int digit=0;**

**while(num!=0) {**

**num=num/10;**

**digit++;**

**}**

**return digit;**

**}**

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

**int num=371;**

**int digit=*C\_digit*(num);**

**System.*out*.println("Numner of digits is " + digit);**

**}**

**}**

**OUTPUT:**

**Numner of digits is 3**

**EXAMPLE : FIND A ARMSTRONG NUMBER**

**package armstrongnumber;**

**public class Armstrong {**

**public static int C\_digit(int num) {**

**int digit=0;**

**while(num!=0) {**

**num=num/10;**

**digit++;**

**}**

**return digit;**

**}**

**public static int F\_armstrong(int num) {**

**int res=0;**

**int digit=*C\_digit*(num);**

**while(num!=0) {**

**int rem=num%10;**

**res = (int)Math.*pow*(rem,digit)+res;**

**num=num/10;**

**}**

**return res;**

**}**

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

**int num=371;**

**int digit=*F\_armstrong*(num);**

**if (num== digit) {**

**System.*out*.println("It's Armstrong ");**

**}**

**else {**

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

**}**

**}**

**}**

**OUTPUT:**

**It's Armstrong**

**EXAMPLE: WRITE A PROGRAM TO FIND ARMSTRONG NUMBER BETWEEN 1 TO 10000;**

**PROGRAM:**

**public class Armstrong {**

**public static int C\_digit(int num) {**

**int digit=0;**

**while(num!=0) {**

**num=num/10;**

**digit++;**

**}**

**return digit;**

**}**

**public static int F\_armstrong(int num) {**

**int res=0;**

**int digit=*C\_digit*(num);**

**while(num!=0) {**

**int rem=num%10;**

**res = (int)Math.*pow*(rem,digit)+res;**

**num=num/10;**

**}**

**return res;**

**}**

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

**for(int k=1;k<=10000;k++) {**

**int res=*F\_armstrong*(k);**

**if(res==k) {**

**System.*out*.println(k);**

**}**

**}**

**}**

**}**

**OUTPUT:**

**1**

**2**

**3**

**4**

**5**

**6**

**7**

**8**

**9**

**153**

**370**

**371**

**407**

**1634**

**8208**

**9474**

**EXAMPLE:**

**FOR FINDING HCF OF A NUMBER**

**PROGRAM:**

**package hcf;**

**public class Hcfnumber {**

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

**int a=12;**

**int b=24;**

**int cf=0;**

**int smlt=(a<b)?a:b;**

**for(int i =1;i<=smlt;i++) {**

**if(a%i==0 && b%i==0) {**

**cf=i;**

**}**

**}**

**System.*out*.println("HCF value is " + cf);**

**}**

**}**

**OUTPUT:**

**HCF value is 12**

**SAME EXAMPLE WITH METHOD USING:**

**PROGRAM:**

**package hcf;**

**public class Hcfnum {**

**public static int C\_fac(int a , int b) {**

**int smlt=(a<b?a:b);**

**int cf=0;**

**for(int i=1;i<=smlt;i++) {**

**if(a%i==0 && b%i==0) {**

**cf=i;**

**}**

**}**

**return cf;**

**}**

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

**int a=15;**

**int b=5;**

**int hcf=*C\_fac*(a,b);**

**System.*out*.println("the hcf value is " +hcf);**

**}**

**}**

**OUTPUT:**

**the hcf value is 5**