**Number Conversions**

**Question 1:**

Report

**Marks: +10-0**

**Description:**

Write a program to Convert the Hexa Decimal number to Decimal number?

**Constraints:**

Input   :   First line of input consists a String ( Hexa Decimal ).

Output :   Print the Hexa Decimal value of the Decimal number.

Constraints  :    If given value is a negative value convert the number to positive value.

                        Given value may consists of Small letters or capital letters.

**Example:**

Input 1    :    A

Output  1 :    A -> 10

Input 2    :    56

Output  2 :    56 -> 86

**Explanation:**

Input 1    :    A

Output  1 :    A -> 10

Explanation :

                   Given Number is A

                   A = A\*160

                      = 10\*1

                      =  10

Decimal Value of a Given Hexa Decimal is A(16)  -->  10(10)

Input 2    :    56

Output  2 :    56 -> 86

Explanation :

                   Given Number is 56

                 56 = 6\*160 + 5\*161

                      = 6\*1 + 5\*16

                      =  6 + 80

                      = 86

Decimal Value of a Given Hexa Decimal is 56(16)  -->  86(10)

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String[]args)

{

Scanner sc=new Scanner(System.in);

String s=sc.next();

int d=0;

int c=0;

int k=0;

int n=s.length();

if(s.charAt(0)=='-')

{

k=1;

}

for(int i=n-1;i>=0;i--)

{

char ch=s.charAt(i);

if(ch>='0' && ch<='9')

d=d+(ch-48)\*(int)Math.pow(16,c);

else if(ch>='A' && ch<='F')

d=d+(ch-55)\*(int)Math.pow(16,c);

else if(ch>='a' && ch<='f')

d=d+(ch-87)\*(int)Math.pow(16,c);

c++;

}

System.out.print(s+ " -> "+d);

}

}

**Question 2:**

Report

**Marks: +10-0**

**Description:**

Write a program to Convert the Hexa Decimal number to Binary number?

**Constraints:**

Input   :   First line of input consists a String.

Output :   Print the Binary number of the Hexa Decimal value .

Constraints  :    Given value consists of Small and Capital letters also**.**

                        If the given value is consists of other then **A to F** Characters(Small or Capital) then print **"InvaliD Characters"**.

**Example:**

Input 1    :    AD

Output  1 :    10101101

Input 2    :    23

Output  2 :    100011

**Explanation:**

Input 1    :    AD

Output  1 :    10101101

Explanation :

                   Given Number is AD

                   AD = D\*160 + A\*161

                        = 13\*1 + 10\* 16

                        =  13 +160

                        =  173

Decimal Value of a Given Hexa Decimal is AD(16)  -->  173(10)

Now, Convert this decimal value to Binary Value

 2 |   173

---|-----------------

 2 |   86    ->  1

---|-----------------

 2 |    43   ->  0

---|-----------------

 2 |    21   ->  1

---|-----------------

 2 |    10   ->  1

---|-----------------

 2 |    5     ->  0

---|-----------------

 2 |    2     ->  1

---|-----------------

 2 |    1     ->  0

---|-----------------

   |    0     ->  1

---|-----------------

Binary value of a this Decimal Number is  173(10)  -->  10101101(2)

Input 2    :    23

Output  2 :    100011

Explanation :

                   Given Number is 23

                   23 = 3\*160 + 2\*161

                        = 3\*1 + 2\*16

                        = 3 +32

                        = 35

Decimal Value of a Given Hexa Decimal is 23(16)  -->  35(10)

Now, Convert this decimal value to Binary Value

 2 |   35

---|-----------------

 2 |   17    ->  1

---|-----------------

 2 |    8    ->   1

---|-----------------

 2 |    4   ->  0

---|-----------------

 2 |    2   ->  0

---|-----------------

 2 |    1    ->  0

---|-----------------

   |    0     ->  1

---|-----------------

Binary value of a this Decimal Number is  35(10)  -->  100011(2)

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String[]args)

{

Scanner sc=new Scanner(System.in);

String s=sc.next();

int d=0;

int c=0;

int k=0;

int z=0;

String b="";

int n=s.length();

if(s.charAt(0)=='-')

{

k=1;

}

for(int i=n-1;i>=k;i--)

{

char ch=s.charAt(i);

if(ch>='0' && ch<='9')

d=d+(ch-48)\*(int)Math.pow(16,c);

else if(ch>='A' && ch<='F')

d=d+(ch-55)\*(int)Math.pow(16,c);

else if(ch>='a' && ch<='f')

d=d+(ch-87)\*(int)Math.pow(16,c);

else

{

z=1;

break;

}

c++;

}

if(z==1)

System.out.print("InvaliD Characters");

else

{

if(d==0)

{

System.out.print("0");

}

else

{

while(d!=0)

{

int r=d%2;

b=r+b;

d=d/2;

}

System.out.print(b);

}

}

}

}

**Question 3:**

Report

**Marks: +10-0**

**Description:**

Write a program to Convert the Binary number to Hexa Decimal number?

**Constraints:**

Input   :   First line of input consists a String (Binary Value).

Output :   Print the **Hexa Decimal value** of the Given **Binary number**.

Constraints  :    Given Input consists of only 1's and 0's.

                        if the Given Input consists of any onther digit except 1 and 0 then print **"Invalid input because of invalid Digits"**.

                        if the Given Input consists of small character then print **"Invalid input because of small characters"**.

                        if the Given Input consists of capital character then print **"Invalid input because of Capital characters"**.

                        if the Given Input consists of any Special characters then print **"Invalid input because of Special characters"**.

**Example:**

Input 1    :    100111

Output  1 :    27

Input 2    :    1111

Output  2 :    F

Input 3    :    10011011

Output  3 :    9B

**Explanation:**

Input 1    :    100111

Output  1 :    27

Explanation :

Given Binary Number is 100111

                   100111 = 1\*20 + 1\*21 + 1\*22 + 0\*23 + 0\*24 + 1\*25

                               = 1 + 2 + 4 + 0 + 0 + 32

                               = 39

Decimal value of a Given Binary Number is 100111(2)  -->  39(10)

Now, We have to find the Hexa Decimal value of this Decimal Number

16 |   39

---|-----------------

16 |   2    ->  7

---|-----------------

    |    0     -> 2

Hexa Decimal value of a Decimal Value is  39(10)  -->  27(16)

Hexa Decimal Value of a Given Binary value is 100111(2)  -->  27(16)

Input 2    :    1111

Output  2 :    F

Explanation :

Given Binary Number is 1111

                   1111 = 1\*20 + 1\*21 + 1\*22 +  1\*23

                           = 1 + 2 + 4 + 8

                           = 15

Decimal value of a Given Binary Number is 1111(2)  -->  15(10)

Now, We have to find the Hexa Decimal value of this Decimal Number

16 |   15

---|-----------------

    |    0     -> 15

Hexa Decimal value of a Decimal Value is 15(10)  -->  F(16)

Hexa Decimal Value of a Given Binary value is 1111(2)  -->  F(16)

Input 3    :    10011011

Output  3 :    9B

Explanation :

Given Binary Number is 10011011

                   10011011 = 1\*20 + 1\*21 + 0\*22 +  1\*23 + 1\*24 + 0\*25 + 0\*26 + 1\*27

                                   = 1 + 2 + 0 + 8 + 16 + 0 + 0 + 128

                                   = 155

Decimal value of a Given Binary Number is 10011011(2)  -->  155(10)

Now, We have to find the Hexa Decimal value of this Decimal Number

16 | 155

---|-----------------

16 |    9     -> B

---|-----------------

    |    0     -> 9

Hexa Decimal value of a Decimal Value is 153(10)  -->  9B(16)

Hexa Decimal Value of a Given Binary value is 1111(2)  -->  9B(16)

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String[]args)

{

Scanner sc=new Scanner(System.in);

String b=sc.next();

int d=0;

int c=0;

int z=0;

String h="";

int n=b.length();

for(int i=n-1;i>=0;i--)

{

char ch=b.charAt(i);

if(ch>='a' && ch<='z')

{

System.out.print("Invalid input because of small characters");

return;

}

else if(ch>='A' && ch<='Z')

{

System.out.print("Invalid input because of Capital characters");

return;

}

else if(ch>='2' && ch<='9')

{

System.out.print("Invalid input because of invalid Digits");

return;

}

else if(ch!='0' && ch!='1')

{

System.out.print("Invalid input because of Special characters");

return;

}

int v=ch-48;

int p=(int)Math.pow(2,c);

c++;

d=p\*v+d;

}

if(d==0)

{

System.out.print("0");

return;

}

while(d!=0)

{

int r=d%16;

if(r<=9)

h=r+h;

else

h=(char)(r+55)+h;

d=d/16;

}

System.out.print(h);

}

}

**Question 4:**

Report

**Marks: +10-0**

**Description:**

Write a program to Convert the Decimal number to Binary number?

**Constraints:**

Input   :   First line of input consists of One integer value (decimal).

Output :   Print the **Binary value** of a Given Number.

Constraints  :    If Given Number is a **Negative Value** then convert that **Negative Value** into **Positive Value**.

                       If the Given Number is 0 then Print "**Zero"**

**Example:**

Input 1    :    25

Output  1 :    11001

Input 2    :    -16

Output  2 :    10000

**Explanation:**

Input 1    :    25

Output  1 :    11001

Explanation :

                   Given Number is 25

 2 |   25

---|-----------------

 2 |   12    ->  1

---|-----------------

 2 |    6     ->  0

---|-----------------

 2 |    3     ->  0

---|-----------------

 2 |    1     ->  1

---|-----------------

 2 |    0     ->   1

---|-----------------

Binary value of a Given Number is  25(10)  -->  11001(2)

Input 2    :    -16

Output  2 :    10000

Explanation :

                   Given Number is -16 so convert this number to positive then the number is 16

 2 |   16

---|-----------------

 2 |    8    ->  0

---|-----------------

 2 |    4    ->  0

---|-----------------

 2 |    2    ->  0

---|-----------------

 2 |    1    ->  0

---|-----------------

 2 |    0    ->   1

---|-----------------

Binary value of a Given Number is  16(10)  -->  10000(2)

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String[]args)

{

Scanner sc=new Scanner(System.in);

int dec=sc.nextInt();

String bin=" ";

if(dec==0)

{

System.out.print("Zero");

}

if(dec<0)

{

dec=-dec;

}

while(dec!=0)

{

int r=dec%2;

bin=r+bin;

dec=dec/2;

}

System.out.println(bin);

}

}

**Question 5:**

Report

**Marks: +10-0**

**Description:**

Write a program to Convert the Binary number to Decimal number?

**Constraints:**

Input   :   First line of input consists a String (Binary Value).

Output :   Print the **Decimal value** of a Given **Binary number**.

Constraints  :    The input must contains only 1's and 0's or else Print **"InvAlid Input**.**"**.

**Example:**

Input 1    :    1101

Output  1 :    13

Input 2    :    10011000

Output  2 :    152

**Explanation:**

Input 1    :    1101

Output  1 :    13

Explanation :

                   Given Binary Number is 1101

                   1101 = 1\*20 + 0\*21 + 1\*22 + 1\*23

                           = 1 + 0 + 4 + 8

                           = 13

Decimal value of a Given Number is 1101(2)  -->  13(10)

Input 2    :    10011000

Output  2 :    152

Explanation :

                   Given Binary Number is 10011000

                  10011000 = 0\*20 + 0\*21 + 0\*22 + 1\*23 + 1\*24 + 0\*25 + 0\*26 + 1\* 27

                                  = 0 + 0 + 0 + 8 + 16 + 0 + 0 + 128

                                  = 152

Decimal value of a Given Number is 10011000(2)  -->  152(10)

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String[]args)

{

Scanner sc=new Scanner(System.in);

String bin=sc.next();

int dec=0,c=0;

int n=bin.length();

if(!bin.matches("[01]+"))

{

System.out.print("InvAlid Input.");

}

else{

for(int i=n-1;i>=0;i*--)*

{

char ch=bin.charAt(i);

int v=ch-48;

int p=(int)Math.pow(2,c);

c++;

dec=p\*v+dec;

}

System.out.print(dec);

}

}

}

**Question 6:**

Report

**Marks: +10-0**

**Description:**

Write a program to Convert the Decimal number to Octal number?

**Constraints:**

Input   :   First line of input consists of One integer value (Decimal).

Output :   Print the **Octal value** of Given Number.

Constraints  :    If Given Number is a **Negative Value** then print **"INVALID Input"**.

                       If the Giiven Number is 0 then print **"ZERO".**

**Example:**

Input 1    :    26

Output  1 :    32

Input 2    :    -15

Output  2 :    INVALID Input

**Explanation:**

Input 1    :    26

Output  1 :    32

Explanation :

                   Given Number is 26

 8 |   26

---|-----------------

 8 |    3    ->  2

---|-----------------

    |    0    ->  3

Octal value of a Given Number is  26(10)  -->  32(8)

Input 2    :    -15

Output  2 :    INVALID Input

Explanation :

                   Given Number is -15 So Print **INVALID Input**.

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String[]args)

{

Scanner sc=new Scanner(System.in);

int dec=sc.nextInt();

String oct=" ";

if(dec<0)

{

System.out.print("INVALID Input");

}

else if(dec==0)

{

System.out.print("ZERO");

}

else{

while(dec!=0)

{

int r=dec%8;

oct=r+oct;

dec=dec/8;

}

System.out.print(oct);

}

}

}

**Question 7:**

Report

**Marks: +10-0**

**Description:**

Write a program to Convert the Decimal number to Hexa Decimal number?

**Constraints:**

Input   :   First line of input consists of One integer value (Decimal).

Output :   Print the **Hexa Decimal value** of Given Number.

Constraints  :    If Given Number is a **Negative Value** then convert the **Negative Value** into **Positive Value**.   
                        If Given Number is 0 then Print **"Given Input is InValid."**.

**Example:**

Input 1    :    152

Output  1 :    98

Input 2    :    253

Output  2 :    FD

**Explanation:**

Input 1    :    152

Output  1 :    98

Explanation :

                   Given Number is 152

16 |   152

---|-----------------

16 |    9    ->  8

---|-----------------

    |    0     ->  9

---|-----------------

Hexa Deicmal Value of a Given Number is  152(10)  -->  98(16)

Input 2    :    253

Output  2 :    FD

Explanation :

                   Given Number is 253

16 |   253

---|-----------------

16 |    15    ->  13

---|-----------------

    |     0     ->  15

---|-----------------

Hexa Deicmal Value of a Given Number is  253(10)  -->  FD(16)

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String[]args)

{

Scanner sc=new Scanner(System.in);

int dec=sc.nextInt();

String hexa=" ";

if(dec==0)

{

System.out.print("Given Input is InValid.");

}

else{

if(dec<0)

{

dec=-dec;

}

while(dec!=0)

{

int r=dec%16;

if(r<=9)

{

hexa=r+hexa;

}

else{

hexa=(char)(r+55)+hexa;

}

dec=dec/16;

}

System.out.println(hexa);

}

}

}

**Question 8:**

Report

**Marks: +10-0**

**Description:**

Write a program to Convert the Binary number to Octal number.

**Constraints:**

Input   :   First line of input consists a String (Binary Value).

Output :   Print the **Octal value** of a Given **Binary number**.

Constraints  :    The input must contains only 1's and 0's or else Print **"Invalid InPut"**.

**Example:**

Input 1    :    1101

Output  1 :    15

Input 2    :    1AB11

Output  2 :    Invalid InPut

**Explanation:**

Input 1    :    1101

Output  1 :    15

Explanation :

                   Given Binary Number is 1101

                   1101 = 1\*20 + 0\*21 + 1\*22 + 1\*23

                           = 1 + 0 + 4 + 8

                           = 13

Decimal value of a Given Number is 1101(2)  -->  13(10)

Now We have to Find Octal value of this Deicmal Value,

 8 | 13

---|--------------

 8 |  1  -> 5

---|--------------

   |  0  ->  1

Octal value of a Decimal Number is  13(10)  -->  15(8)

So Octal value of a Given Binary Value is 1101(2)   -->   15(8)

Input 2    :    1AB11

Output  2 :    Invalid InPut

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String[]args)

{

Scanner sc=new Scanner(System.in);

String b=sc.next();

int d=0;

int c=0;

int z=0;

int n=b.length();

for(int i=n-1;i>=0;i--)

{

char ch=b.charAt(i);

if(ch!='1' && ch!='0')

{

z=1;

break;

}

int v=ch-48;

int p=(int)Math.pow(2,c);

c++;

d=p\*v+d;

}

if(z==1)

System.out.print("Invalid InPut");

else{

if(d==0)

{

System.out.print("0");

}

else{

String oct=" ";

while(d!=0)

{

int r=d%8;

oct=r+oct;

d=d/8;

}

System.out.print(oct);

}

}

}

}

**Question 9:**

Report

**Marks: +10-0**

**Description:**

Write a program to Convert the Octal number to Binary number?

**Constraints:**

Input   :   First line of input consists a String (Octal Number).

Output :   Print the Binary number of the Octal number .

Constraints  :    If the given Octal value is not an Octal Number print **"InvalId Input".**

**Example:**

Input 1    :    377

Output  1 :    11111111

Input 2    :    19

Output  2 :    InvalId Input

**Explanation:**

Input 1    :    377

Output  1 :    11111111

Explanation :

                   Given Number is 377

            377 = 7\*80 + 7\*81 + 3\*82

                  = 7 + 56 + 192

                  = 255

Decimal value of a Given Octal Number is 377(8)   -->   255(10)

Now, Convert this Decimal value to Binary Value

 2 |   255

---|-----------------

 2 |   127    ->  1

---|-----------------

 2 |    63     ->  1

---|-----------------

 2 |    31     ->  1

---|-----------------

 2 |    15     ->  1

---|-----------------

 2 |    7     ->   1

---|-----------------

 2 |    3     ->   1

---|-----------------

 2 |    1     ->   1

---|-----------------

   |    0     ->   1

Binary value of a Given Number is 255(10)  --> 11111111(2)

Input 2    :    19

Output  2 :    InvalId Input

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String[]args)

{

Scanner sc=new Scanner(System.in);

String b=sc.next();

String h="";

int d=0;

int z=0;

int c=0;

int n=b.length();

for(int i=n-1;i>=0;i--)

{

char ch=b.charAt(i);

if(ch>='8')

{

z=1;

break;

}

int v=ch-48;

int p=(int)Math.pow(8,c);

c++;

d=p\*v+d;

}

if(z==1)

{

System.out.print("InvalId Input");

}

else

{

if(d==0)

{

System.out.print("0");

}

else

{

while(d!=0)

{

int r=d%2;

h=r+h;

d=d/2;

}

System.out.print(h);

}

}

}

}

**Question 10:**

Report

**Marks: +10-0**

**Description:**

Write a program to Convert the Octal number to Decimal number.

**Constraints:**

Input   :   First line of input consists a String (Octal Number).

Output :   Print the Decimal value of the Octal number.

Constraints  :    If Given Octal Number is a negative value convert the number to **positive value**.

                        If the given value is not an Octal Number print **"Invalid Input"**.

**Example:**

Input 1    :    11

Output  1 :    9

Input 2    :    -32

Output  2 :    26

**Explanation:**

Input 1    :    11

Output  1 :    9

Explanation :

                   Given Number is 11

            11 = 1\*80 + 1\*81

                = 1 + 8

                = 9

Decimal value of a Given Octal Number is 11(8)   -->   9(10)

Input 2    :    -32

Output  2 :    26

Explanation :

                   Given Number is -32, so lets take this value into positive then value is 32

            32 = 2\*80 + 3\*81

                = 2 + 24

                = 26

Decimal value of a Given Octal Number is 32(8)   -->   26(10)

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String[]args)

{

Scanner sc=new Scanner(System.in);

String s=sc.next();

int o=0;

int c=0;

int k=0;

int z=0;

int n=s.length();

if(s.charAt(0)=='-')

k=1;

for(int i=n-1;i>=k;i--)

{

char ch=s.charAt(i);

if(ch>='8')

{

z=1;

break;

}

int v=ch-48;

int p=(int)Math.pow(8,c);

c++;

o=p\*v+o;

}

if(z==1)

System.out.print("Invalid Input");

else

System.out.print(o);

}

}

**Question 11:**

Report

**Marks: +10-0**

**Description:**

Write a program to Convert the Octal number to Hexa Decimal number?

**Constraints:**

Input   :   First line of input consists a String (Octal Number).

Output :   Print the Hexa Decimal value of the Octal number.

Constraints  :    If the Given Value is a negative value convert that Value to positive value.

                        If the given  value is not an Octal Number print "**InvalId Input"**.

**Example:**

Input 1    :    15

Output  1 :    D

Input 2    :    -125

Output  2 :    55

**Explanation:**

Input 1    :    15

Output  1 :    D

Explanation :

                   Given Number is 15

            15 = 5\*80 + 5\*81

                 = 5 + 8

                 = 13

Decimal value of a Given Octal Number is 15(8)   -->   13(10)

Now, Convert this Decimal value to Hexa Decimal Value

16 |   13

---|-----------------

    |    0     ->   13

Binary value of a Given Number is 13(10)  --> D(16)

Input 2    :    -125

Output  2 :    55

Explanation :

                   Given Number is -125, it is Negative value convert this value to positive so value is 125

                  125 = 5\*80 + 2\*81 + 1\*82

                         = 5 + 16 + 64

                         = 85

Decimal value of a Given Octal Number is 125(8)   -->   85(10)

Now, Convert this Decimal value to Hexa Decimal Value

16 |   85

---|-----------------

16 |    5     ->   5

---|-----------------

    |    0     ->   5

Binary value of a Given Number is 85(10)  --> 55(16)

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String[]args)

{

Scanner sc=new Scanner(System.in);

String o=sc.next();

int d=0;

int k=0;

int c=0;

int z=0;

String h="";

int n=o.length();

if(o.charAt(0)=='-')

{

k=1;

}

for(int i=n-1;i>=k;i--)

{

char ch=o.charAt(i);

if(ch>='8')

{

z=1;

break;

}

int v=ch-48;

int p=(int)Math.pow(8,c);

c++;

d=p\*v+d;

}

if(z==1)

{

System.out.print("InvalId Input");

}

else{

if(d==0)

{

System.out.print("0");

}else

{

while(d!=0)

{

int r=d%16;

if(r<=9)

{

h=r+h;

}

else{

h=(char)(r+55)+h;

}

d=d/16;

}

System.out.print(h);

}

}

}

}

**Question 12:**

Report

**Marks: +10-0**

**Description:**

Write a program to Convert the Hexa Decimal number to Octal number?

**Constraints:**

Input   :   First line of input consists a String ( Hexa Decimal ).

Output :   Print the Hexa Decimal value of the Octal number.

Constraints  :    If given value is a negative value convert the number to positive value.

                        If the given value may consists of Small letters or capital letters.

                        If the given value is not an Hexa Decimal Number print **"InvaliD Input"**.

                        If the Given value is Negative then Print the Output Like **Given Value -> Resultant Value**

**Example:**

Input 1    :    1B

Output  1 :    33

Input 2    :    -2E

Output  2 :    -2E -> 56

**Explanation:**

Input 1    :    1B

Output  1 :    33

Explanation :

                   Given Number is 1B

                   1B = B\*160 + 1\*161

                        = 11\*1 + 1\* 16

                        =  11 +16

                        =  27

Decimal Value of a Given Hexa Decimal is 1B(16)  -->  27(10)

Now, Convert this decimal value to Octal Value

 8 |   27

---|-----------------

 8 |   3    ->  3

---|-----------------

   |    0   ->   3

---|-----------------

Octal value of a this Decimal Number is  27(10)  -->  33(8)

Hence the Octal Value Given Hexa Decimal Value is 1B(16) -> 33(8)

Input 2    :    -2E

Output  2 :    -2E -> 56

Explanation :

                   Given Number is -2E, So positive value of given value is 2E

                   -2E = 2\*160 + E\*161

                        = 2\*1 + 14\* 16

                        =  2 + 224

                        =  226

Decimal Value of a Given Hexa Decimal is -2E(16)  -->  226(10)

Now, Convert this decimal value to Octal Value

 8 |   226

---|-----------------

 8 |    28    ->  2

---|-----------------

 8 |      3   ->   4

---|-----------------

           0   ->   3

Octal value of a this Decimal Number is  226(10)  -->  342(8)

Hence the Octal Value Given Hexa Decimal Value is -2E(16) -> 342(8)

**Your Code: java**

import java.util.Scanner;

class Hexaoct

{

public static void main(String[] args)

{

Scanner sc=new Scanner(System.in);

String hexa=sc.next();

int s=0;

int n=hexa.length();

int k=0,c=0,z=0;

if(hexa.charAt(0)=='-')

{

k=1;

}

for(int i=n-1;i>=k;i--)

{

char ch=hexa.charAt(i);

if(ch>='0' && ch<='9')

s=s+(ch-48)\*(int)Math.pow(16,c);

else if(ch>='A' && ch<='F')

s=s+(ch-55)\*(int)Math.pow(16,c);

else if(ch>='a' && ch<='f')

{

s=s+(ch-87)\*(int)Math.pow(16,c);

}

else{

z=1;

break;

}

c++;

}if(z==1)

System.out.print("InvaliD Input");

else{

if(k==1)

System.out.print(hexa+" -> ");

if(s==0)

{

System.out.print(0);

}else

{

String oct="";

while(s!=0)

{

int r=s%8;

oct=r+oct;

s/=8;

}

System.out.print(oct);

}

}

}

}