

```
① import java.io.*;
```

```
public class main {
```

```
private int num;
```

```
private int size;
```

```
public main(int x) {
```

```
num = x;
```

```
size = 0;
```

```
void countDigit() {
```

```
for(int m = num; m != 0; m /= 10)
```

```
size++;
```

```
}
```

```
public int sumofDigits(int x, int p) {
```

```
if (x < 10)
```

```
return (int) Math.pow(x, p);
```

```
else
```

```
int t = (int) Math.pow(x % 10, p);
```

```
return t + sumofDigits(x / 10, --p);
```

```
}
```

```
}
```

```
public void check() {
```

```
if (num == sumofDigits(num, size))
```

```
System.out.println(num + " is a Disarium  
Number");
```

```
else  
System.out.println(num + " is not a Rensarium  
Number.");
```

```
}
```

```
public static void main(String args[])  
throws IOException {
```

```
InputStreamReader in = new InputStreamReader  
(System.in);
```

```
BufferedReader br = new BufferedReader(in);  
System.out.println("S. Renu Varshith, 51834531");  
System.out.print("Number:");
```

```
int x = Integer.parseInt(br.readLine());
```

```
Main obj = new Main(x);
```

```
obj.countDigit();
```

```
obj.check();
```

```
}
```

```
}
```

③ public class Renu

```
{
```

```
static int replace_digit(int a, int number to  
be replaced, int replacing number)
```



```

{
    int result = 0, multiply = 1;
    while (a / 10 > 0)
    {
        int remainder = a % 10;
        if (remainder == number to be replaced)
            result = result + replacing number * multiply;
        else
            result = result + remainder * multiply;
        multiply * = 10;
        a = a / 10;
    }
}

```

return result;

}

public static void main (String[] args)

{

int a = 645, number to be replaced = 6,

replacing number = 5;

System.out.println("A. Renu , 51834531");

System.out.println (replace Digit (a, number to be replaced, replacing number));

}

5. $\frac{1}{x^2} = x^{-2}$

Derivada da função $y = x^{-2}$ (usando a regra da potência)

$$\frac{dy}{dx} = -2x^{-3}$$

$$= -2 \cdot \frac{1}{x^3} = -\frac{2}{x^3}$$

$$= -\frac{2}{x^3}$$

$$\text{Resposta: } -\frac{2}{x^3}$$

Exemplo 2: Derivada da função $y = \frac{1}{x^3}$

$$y = x^{-3}$$

$$\frac{dy}{dx} = -3x^{-4}$$

$$= -3 \cdot \frac{1}{x^4} = -\frac{3}{x^4}$$

$$= -\frac{3}{x^4}$$

Resposta:

$$-\frac{3}{x^4}$$

Exemplo 3: Derivada da função $y = \frac{1}{x^4}$

$$y = x^{-4}$$

Resposta:

Exemplo 4: Derivada da função $y = \frac{1}{x^5}$

$$y = x^{-5}$$

Derivada: $\frac{dy}{dx} = -5x^{-6} = -\frac{5}{x^6}$

$$= -\frac{5}{x^6}$$

Resposta: $-\frac{5}{x^6}$


```
if (result == -1)
```

```
System.out.println("element not present");
```

```
else
```

```
System.out.println("element found at" + "index"
```

```
+ result);
```

```
}
```

```
}
```

On Call 17:01

tap to enter

```
1 import java.io.*;
2 public class Main{
3     private int num;
4     private int size;
5     public Main(int x){
6         num = x;
7         size = 0;
8     }
9     void countDigit(){
10         for(int m = num; m != 0; m /= 10)
11             size++;
12     }
13     public int sumOfDigits(int x, int p){
14         if(x < 10)
15             return (int)Math.pow(x, p);
16         else{
17             int t = (int)Math.pow(x % 10, p);
18             return t + sumOfDigits(x / 10, --p);
19         }
20     }
21     public void check(){
22         if(num == sumOfDigits(num, size))
23             System.out.println(num + " is a Disarium Number.");
24         else
25             System.out.println(num + " is not a Disarium Number.");
26     }
27     public static void main(String args[])
```

× Terminal



```
renu 51834531
Number: 54321
54321 is not a Disarium Number.

Process finished.
```



1 2 3 4 5 6 7 8 9 0

q w e r t y u i o p

a s d f g h j k l

↑ z x c v b n m ↵

?123

,



.





june 17 2.java



Saved



```
1 public class Main
2 {
3     static int replaceDigit(int a, int numbertobereplaced,
4                             int replacingnumber)
5     {
6         int result = 0, multiply = 1;
7
8         while (a % 10 > 0)
9         {
10
11             int remainder = a % 10;
12
13             if (remainder == numbertobereplaced)
14                 result = result + replacingnumber * multiply;
15
16             else
17                 result = result + remainder * multiply;
18
19             multiply *= 10;
20             a = a / 10;
21         }
22         return result;
23     }
24
25     public static void main(String[] args)
26     {
27         int a = 11223344, numbertobereplaced = 2, replacingnumber = 5;
28         System.out.println("s.renu varshith, 51834531");
29         System.out.println(replaceDigit(a, numbertobereplaced, replacingnumber));
30     }
31 }
```



Terminal



```
s.renu varshith, 51834531
11553344
```

```
Process finished.
```



june 17 2.java

Saved



```
22
23     int res = x.compareTo(arr[m]);
24
25
26
27     // Check if x is present at mid
28
29     if (res == 0)
30
31         return m;
32
33
34
35     // If x greater, ignore left half
36
37     if (res > 0)
38
39         l = m + 1;
40
41
42
43     // If x is smaller, ignore right half
44
45     else
46
47         r = m - 1;
48
49 }
50
51
52
53 return -1;
54
55 }
56
57
58
59 // Driver method to test above
60
61 public static void main(String []args)
62 {
63     System.out.println("renu 51834531");
64     String[] arr = { "renu", "varshith", "sal", "ajay"};
65
66     String x = "renu";
67
68     int result = binarySearch(arr, x);
69
70
71
```



Terminal



```
renu 51834531
Element found at index 0

Process finished.
```

