

## DailyFlash

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**Note: Your 5<sup>th</sup> Program will be in continuation to previous program to achieve a final output. Therefore, you have continue coding in yesterday's last code.**

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Program 1: Write a Program that print multiplication of Series up to nth length if user provides length.

Series:  $(1*1) * (2*2) * (3*3) * ... * (n*n)$ .

Input: Enter Length of Series: 4

Output: The multiplication of Series of length 4 = 576

Program 2: Write a Program that replaces every occurrence of n1 with a digit n2 from that number if user provides the number & digit n1 to replace and digit n2 to replace with n1.

Input:

Enter Number: 121145

Enter Digit from number to replace: 5

Enter Digit to replace with 5: 4

Output: 121144

Program 3: Write a Program that computes & prints each Numbers entered by user using do while loop until user enters an Armstrong Number.

Input: 10 6 22 50 301 153

Output: 10 6 22 50 301 Terminating

Program 4: Write a Program to Print following Pattern.

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*   *   *   *   *   *   *
    *   *   *   *   *
      *   *   *
        *
```

**{Continue with Yesterday's Last Program}**

Program 5: Write a Program that computes Centre (x, y) of In-circle inside a triangle if user enters the vertices of all three points of that triangle.

{Steps:

1. Calculate centre(x,y) of an In-Circle enclosed under Triangle using

Heron's formula :

$$X = (b*x1) + (c*x2) + (a*x3) / P$$

$$y = (b*y1) + (c*y2) + (a*y3) / P$$

Where,

- a, b, c are the distances of triangle ABC and

$$a = d(A, B)$$

$$b = d(B, C)$$

$$c = d(C, A)$$

Where A = (x1, y1), B = (x2, y2), C = (x3, y3)

- P is perimeter of Triangle

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Input:

$$A(x1, y1) = 5\ 2$$

$$B(x2, y2) = 6\ 3$$

$$C(x3, y3) = 3\ 1$$

Output:

Length AB = 1.41

Length BC = 3.60

Length AC = 2.23

Perimeter of Triangle = 7.24

Semi-Perimeter of Triangle = 3.62

Area of Triangle = 0.4716

Radius of In-circle = 0.1302

Centre of In-Circle(x,y) = (4.91, 2.11).

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