

Example1: Write a visual basic (VB) program (profile and code) to calculate the average of three values.

In mathematical way, this question can be solved as follows

- 1- The three values are variable values. Named (N1, N2 and N3)
- 2- Calculate the average value by using the following equation.

$$Av=(N1+N2+N3) / 3$$

The same steps you can follow by using VB program as follows

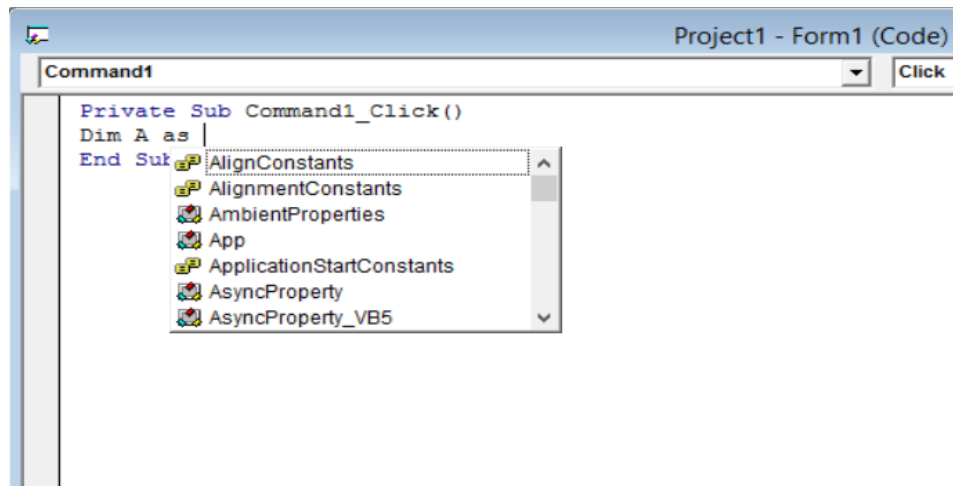
- 1- Since (N1,N2,N3) are input values, you should create three textboxes (get from Toolbox). In order to input the variable values.
- 2- Change the properties of the textbox (change the programming name, delete the visual name, change the background color, the font, the alignment,).
- 3- Create three Labels (from the Toolbox) in order to define the three values.
- 4- Create a Command button and renamed it (calculate). For the purpose of using it in giving the command to execute the calculation of the equation that will be written in the code.
- 6- Create a text box to show the calculated value.
- 7- Change the properties of the text box in step No.6 and change the programming name as (Avg) and create a label named 'The Average Value'.

8- Double click on the command button 'which is named as calculate' in order to write the required code inside the code window. The following notes are very important in writing the code:

- Define any variable by using the idiom (Dim). For example, if (A) is a variable:

Dim A as

(instead of you should select an appropriate definition for (A) from the list shown in the Fig. bellow)



In this example we will select (single) from the list. Because in VB, single means Decimal Number.

- Write the equation. In VB program, the equation must always be in the following form.

X=a+b+c

Where X is the value that you want to calculate
a,b,c are the variable values.

So, in the code you should wright

Dim Av as Single

Av=(val (N1.Text) + val (N2.Text) + val (N3.Text)) / 3

Avg.Text = Av

Your profile solution should be written as follows:

1- Create 3 textboxes Named (N1, N2 and N3) for input and 1 textbox named (Avg) for output.

2- Create 4 labels named (Value 1=, Value 2= Value 3=, The Average Value=).

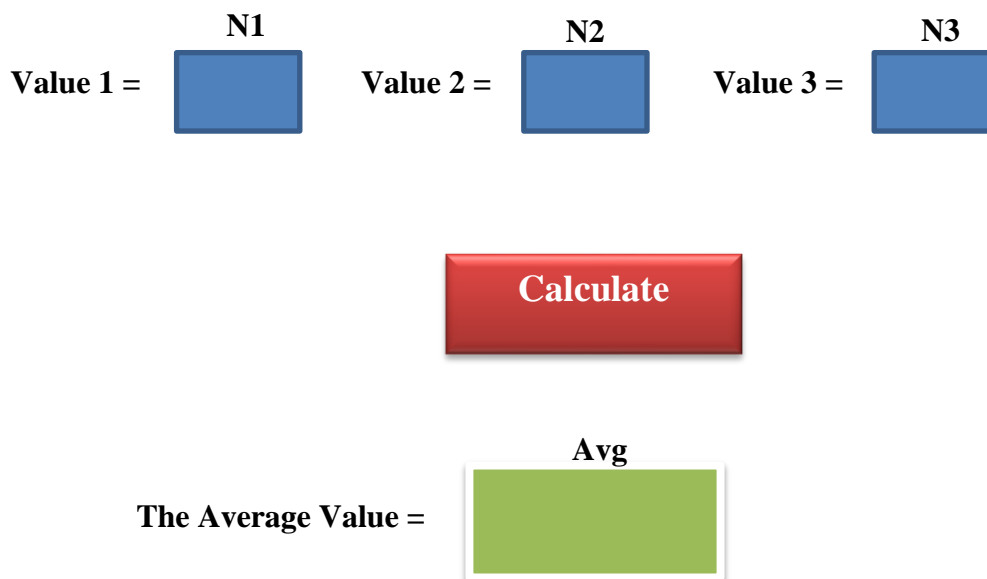
3- Create 1 command button (Calculate).

4- Write the following **code** in the command button.

```
Dim Av as Single
```

```
Av= (val (N1.Text) + val(N2.Text) + val(N3.Text)) / 3
```

```
Avg.Text = Av
```



Homework: Write a (VB) program (profile and code) to find the value of X mentioned in the following equation:

$$\mathbf{X+4a-b = 2c+3d}$$