Programming Fundamentals

Assignment No.1

Task-01

Volume Calculation

1. Start
2. int a,b;
3. float V;
4. const float pi=3.14;
5. V=(2*pi*a*a*(b+c))/3
6. Display “Volume of eggshell is”,V
7. Stop

Explanation

In this task I’ve used the following data types

- Integer (int)
- Float
- Constant (const)

Firstly,when I started the program,I declared two variables and b as integer.Then I declared V (volume) as float.I then declared pi as a constant.Simply,put the formula for volume calculation of egg and before ending displayed the output generated from formula.

Task-02

Surface Area

1. Start
2. Declare int a,b
3. Set A,e to float
4. Set pi to constant=3.14
5. e=√1-(b*b/a*a)
6. A=(2*pi*b*b)+((2*pi*a*b*sin^-1e/e))
7. Display “Area is”,A
8. End

Explanation

Following Data Types have been used :

- Float
- Integer (int)
- Const pi

  Take two variables a,b and declare them as variable.Take A and e as variable for float and pi as a constant.Apply formula for eccentricity whose value will be later used in finding area.After the value comes out,apply formula to calculate surface area of egg.Display the calculated area and end the program.

Task-03

Number of Eggs

Start
Set Area of egg to float
Input area; //where area has been declared has A
Area of Egg = (25.77/100)*(147682.907)
No. of Eggs=Surface area of egg shell/surface area of an egg
Display “No. of eggs is”,number of eggs

Explanation

Data Types used;

Float

Take float data type and assigned it to variable A.Input given area of image.Calculate area of egg by dividing area of eggshell by 100 and multiplying with given area of image.Display number of eggs.

Task-04

Total Volume of Egg Yolk

Pseudocode

Display “Total Volume of egg”

Input total volume

Display “Volume of egg yolk”

Input v olume

Enter “Number of eggs

Input number

Volume of egg yolk for number of eggs=(Volume of egg yolk/100)*total volume*No. of eggs

Display “Output for total volume”,total volume of egg yolk

Flow of Calculations

Set egg’s yolk volume to float

Set V to float //where V is total volume of egg shell as calculated in task 1

Int No. of eggs //which have already been calculated in task 3

Egg Yolk Volume=65% of volume

Egg Yolk Volume=(65/100)*total volume

Total Volume=(No. of eggs)*(egg yolk volume)*(Volume calculated in task 1)

Explanation

Float and integer has been used as a data type in this task.

First,we shall set egg yolk volume and volume of egg shell(calculated in task1) to float.Input number of eggs already calculated in task 3.Apply formula for total volume and display output.

Task For Bonus Marks

```
#include<iostream>

#include<string>

using namespace std;

int main()

{

string x;

x=spinosaurus60;

cout<<x;

return 0;

}
```