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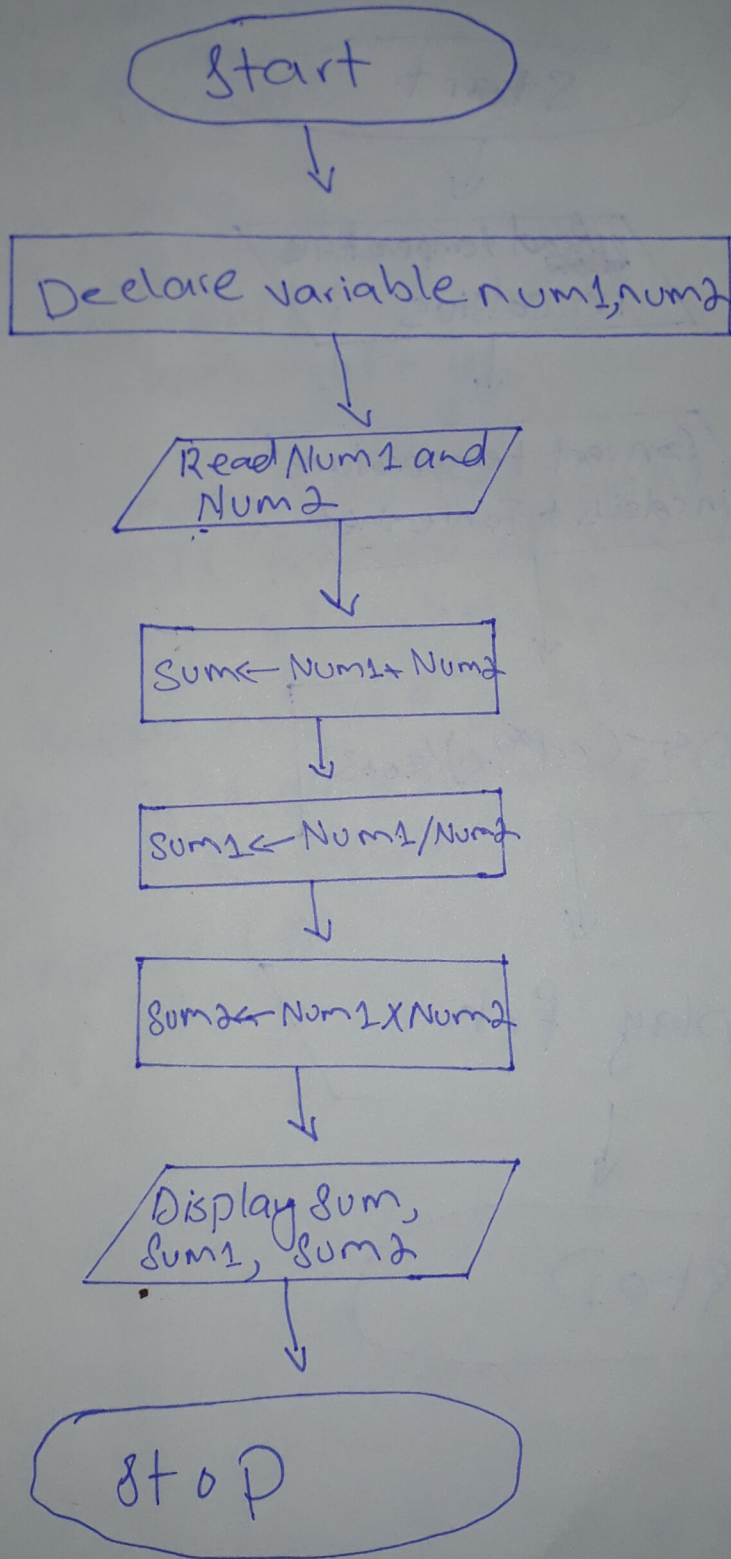
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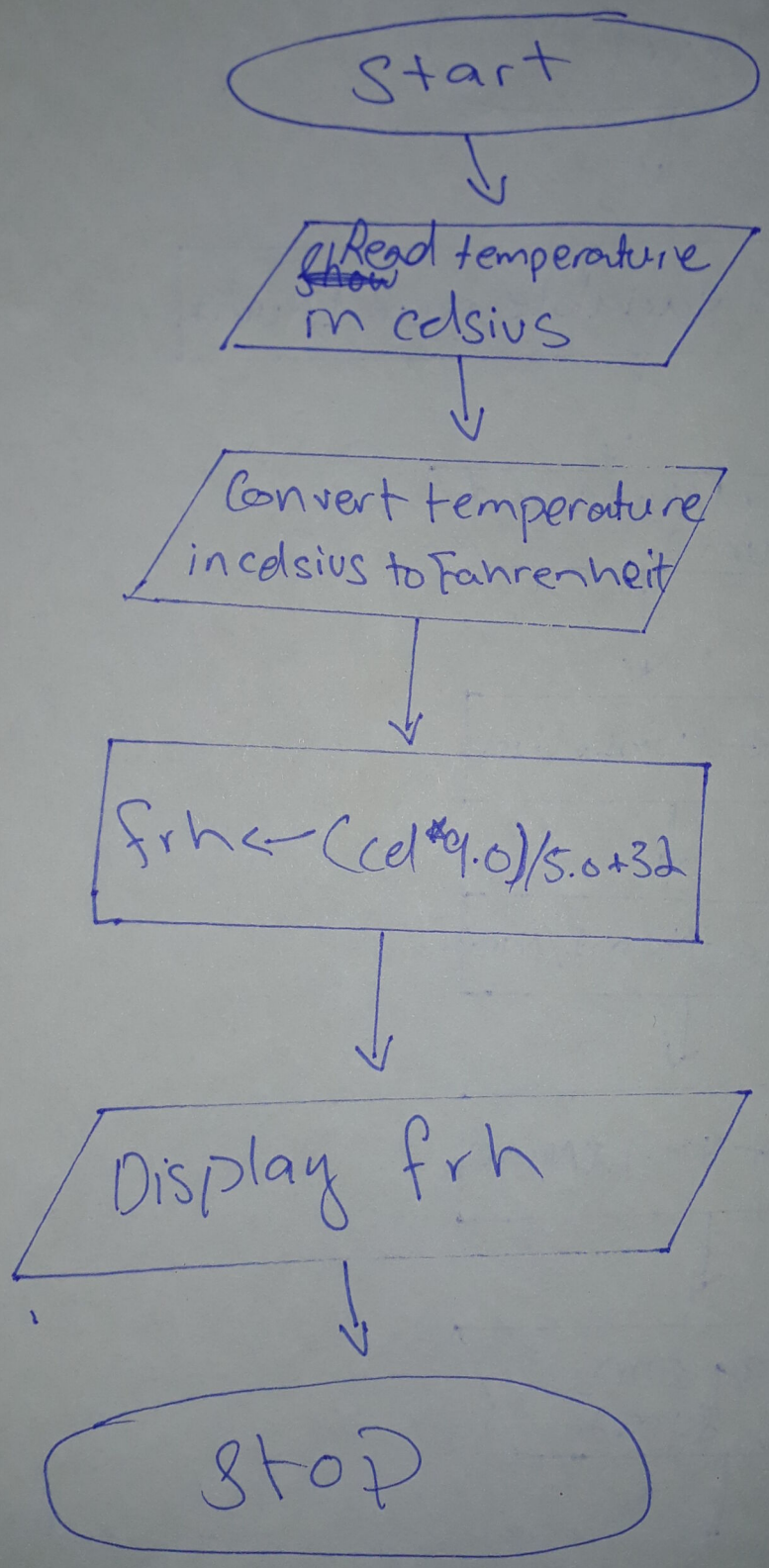


Q1/A Flow chart





Q 1/B flow chart





Q2/A Draw flow chart and write a C++ program

```
#include <stdio.h>
int width;
int height;
```

```
int area;
int perimeter;
```

```
int main() {
    height height = 7;
    width = 5;
```

```
    perimeter = 2 * (height + width);
    printf("Perimeter at the rectangle = %d inches\n", perimeter);
```

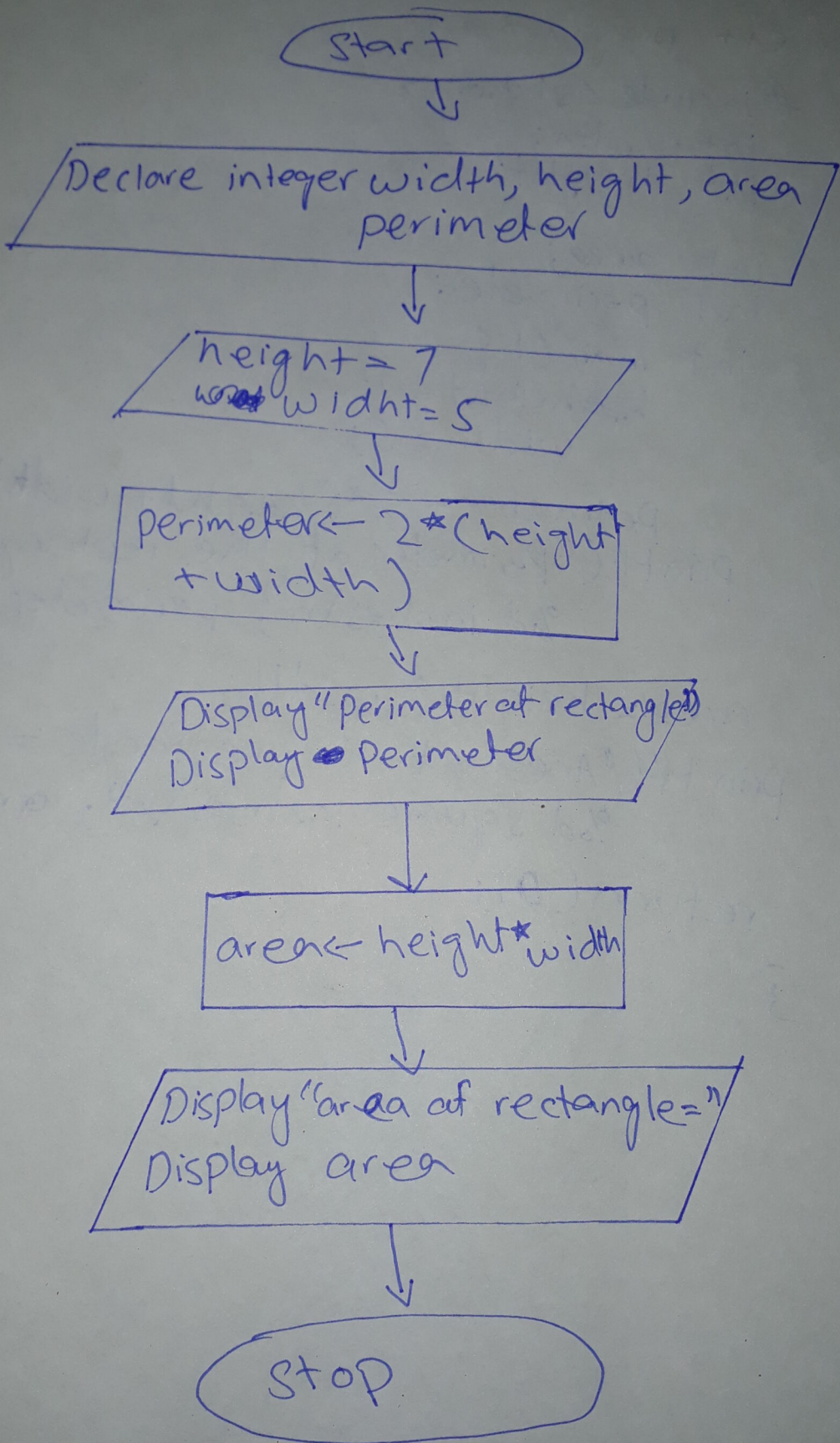
```
    area = height * width;
    printf("Area at the rectangle = %d square inch\n", area);
```

```
    return(0);
```

```
}
```









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Q2/B

Write a C++ program

```
#include <iostream>
```

```
#define PI 3.14
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
float radius, area, circum;
```

```
cout << "Input the radius  
(1/2 of diameter) of a  
circle:";
```

```
cin >> radius;
```

```
circum = 2 * PI * radius;
```

```
area = PI * (radius * radius);
```

```
cout << "The area of the  
circle is:" << area;
```

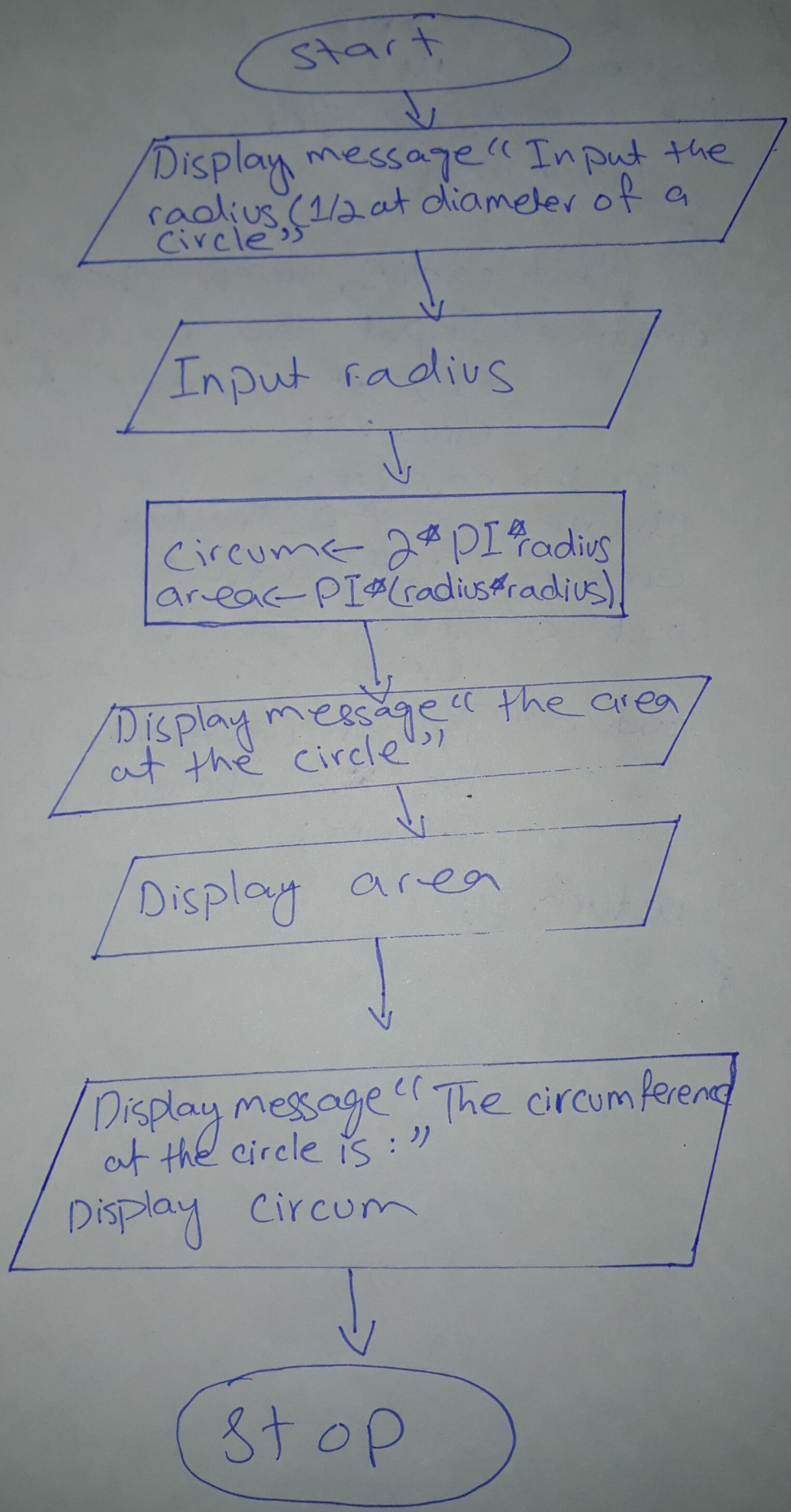
```
cout << "The circumference of  
the the circle is:" <<  
circum;
```

```
return 0;
```

```
}
```



# flow chart





Q3/A

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Discuss different types of programming languages?

programming languages specially developed so that you could pass your data and instructions to the computer to do specific jobs

There are two major types of programming languages

- => low level languages
- => High level languages

low level languages are further divided into machine language and Assembly languages.

High level languages are, for scientific application Fortran and C languages are used. On the other hand Cobol is used for business application

High level languages Computer (programming) languages that are easier to learn. Uses english like statements.

Examples are C++, Visual Basic, Pascal

Machine languages  
The fundamental languages at the computer's processor also called "low level language"

All programs are converted into machine language before they can be executed



Consists of combination of 0's and 1's <sup>(8)</sup>  
that represent high and low electrical  
voltage

### Assembly Language

A low level language that is similar  
to machine language.

Uses symbolic operation code to  
represent the machine operation  
code.



Q3/B

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How many translators are there to translate higher level language to machine languages?

Compilers-

Compilers are used to translate a program written in a high level languages into machine code (object code)

Once compiled (all in one go), the translated program file can then be directly used by the computer and is independently executable.

Compiling may take some time but the translated program can be used again and again without the need for recompilation.

Interpreters-

Interpreter programs are able to read, translate and execute one statement at a time from a high-level language program. The interpreter stops when a line of code is reached that contains an error.

Interpreters are often used during the development of a program. The make debugging easier as each line of code is analysed and checked before execution.

Assemblers-

Assemblers are used to translate a program written in a low level assembly languages into a machine code (object code) file so it can be used and executed by the computer



(10)

Once assembled, the program file can be used again and again without re-assembly.