# Experiment 5.1.2

## Roots of an experiment

Algorithm:

Step 1: Start

Step 2: Input four integers a, b, c, d

Step 3: Calculate total = a + b + c + d

Step 4: Print total

Step 5: Calculate per = (total / 400) * 100

Step 6: Print per rounded to two decimal places

Step 7: If per > 75

Print "Distinction"

Step 8: Else if per >= 60 and per <= 75

Print "First Division"

Step 9: Else if per >= 50 and per < 60

Print "Second Division"

Step 10: Else if per >= 40 and per < 50

Print "Third Division"

Step 11: Else

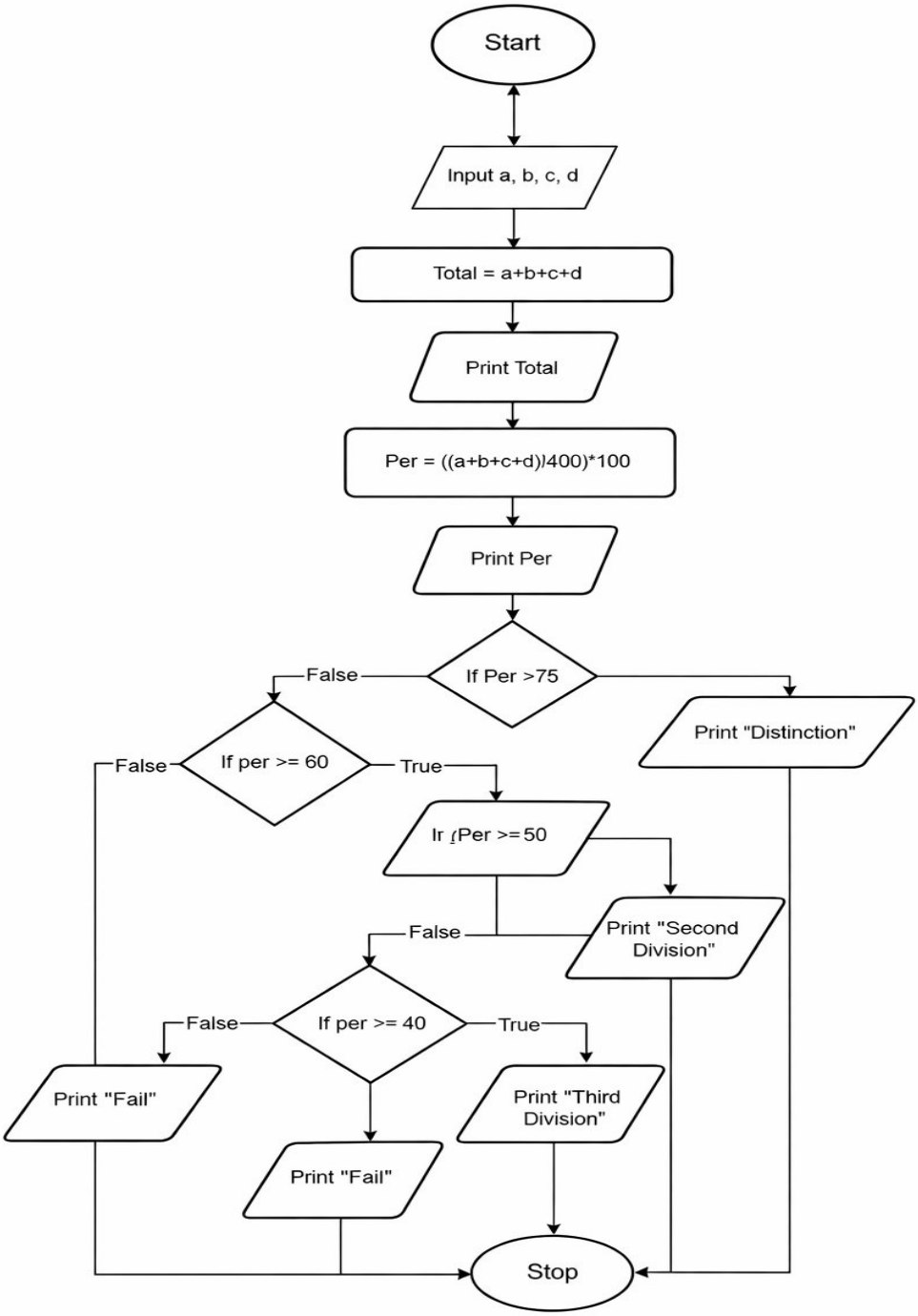
Print "Fail"

Step 12: Stop

Code:

```
a, b, c, d = map(int,input().split())
        print(a+b+c+d)
        per = ((a+b+c+d)/400)*100
        print(f"{per:.2f}")
        if per>75:
                print("Distinction")
        elif per>=60 and per<=75:
                print("First Division")
        elif per>=50 and per<=60:
                print("Second Division")
        elif per>=40 and per<=50:
                print("Third Division")
        else:
                print("Fail")
```

# FlowChart:


Start
Input a, b, c, d
Total = a+b+c+d
Print Total
Per = ((a+b+c+d)/400)*100
Print Per
If Per >75
False
Print "Distinction"
If per >= 60
False
True
Ir ſPer >=50
Print "Second Division"
False
If per >= 40
False
True
Print "Fail"
Print "Third Division"
Print "Fail"
Stop

## 5.1.2. Student Grade Based on Aggregate

07:19

Write a program to calculate the total marks, aggregate percentage, and grade of a student based on marks in four subjects. The grade is determined as follows:

- Aggregate $>$ 75%: Distinction
- Aggregate $>=$ 60% and $<$ 75%: First Division
- Aggregate $>=$ 50% and $<$ 60%: Second Division
- Aggregate $>=$ 40% and $<$ 50%: Third Division
- Aggregate $<$ 40%: Fail

**Input Format:**

- Four space-separated integers representing the marks in four subjects.

**Output Format:**

- The first line should print the total marks.
- The second line should print the aggregate percentage with two decimal places.
- The third line should print the grade.

**Constraints:**

- $0<=$marks in each subject$<=100$

Sample Test Cases +

Explorer

studentG...

Submit

```
1  a, b, c, d = map(int,input().split())
2  print(a+b+c+d)
3  per = ((a+b+c+d)/400)*100
4  print(f"{per:.2f}")
5  if per>75:
6      print("Distinction")
7  elif per>=60 and per<=75:
8      print("First Division")
9  elif per>=50 and per<=60:
10     print("Second Division")
```

Debugger

Average time **0.002 s** 2.30 ms

Maximum time **0.006 s** 6.00 ms

5 out of 5 shown test case(s) passed

5 out of 5 hidden test case(s) passed

Test case 1 6 ms Debug

| Expected output | Actual output |
|---|---|
| 85 90 78 88 | 85 90 78 88 |
| 341 | 341 |
| 85.25 | 85.25 |
| Distinction | Distinction |

Test case 2 2 ms

Terminal Test cases

‹ Prev Reset Submit Next ›