Assignment 3

Name:───────────────────────────────────

Choose one (1) of the three (3) programs. Make sure to write the flowchart.

Letter Grade

Define the function

Function Name:	Average()
Parameter(s):	x: float
	y: float
	z: float
Return:	float

Function Name:	LetterGrade()
Parameter(s):	grd: float
Return:	string

where **Average** returns the average of x, y, and **LetterGrade()** returns the letter grade associated with grd based on following table

Grading Scale (%)	
$97 - 100$	A+
$93 - 96.9$	A
$90 - 92.9$	A−
$87 - 89.9$	B+
$83 - 86.9$	B
$80 - 82.9$	B−
$76 - 79.9$	C+
$70 - 75.9$	C
$67 - 69.9$	D+
$63 - 66.9$	D
$60 - 62.9$	D−
$0 - 59.9$	F

In the main function,

1. prompt the user to enter there (3) numbers.
2. display the average of the numbers.
3. display the letter grade associated with the average.

Note: Round the solutions to one decimal place.

A possible output of the program is:

```
Enter three numbers:  86 82.5 95.5

The average is 88.0
The letter grade is B+
```

4-Point Statistics

Define the functions

Function Name:	maximum()
Parameter(s):	x: float y: float z: float w: float
Return:	float

Function Name:	minimum()
Parameter(s):	x: float y: float z: float w: float
Return:	float

Function Name:	average()
Parameter(s):	x: float y: float z: float w: float
Return:	float

Function Name:	median()
Parameter(s):	x: float y: float z: float w: float
Return:	float

where `maximum()` returns the maximum of the parameters, `minimum()` returns the minimum of the parameters, `average()` returns the average of the parameters, and `median()` returns the median of the parameters. In the main function,

1. prompt the user to enter four (4) numbers.
2. display the maximum of the numbers.
3. display the minimum of the numbers.
4. display the average of the numbers.
5. display the median of the numbers.

Note: Round solutions to one decimal place.

A possible output of the program is:

```
Enter four numbers:  86 82.5 95.5 80

The maximum is 95.5
The minimum is 80.0
The average is 86.0
The median is 84.3
```

Green text are inputs.

5-Point Statistics

Define the functions

Function Name:	maximum()
Parameter(s):	x: float
	y: float
	z: float
	w: float
	v: float
Return:	float

Function Name:	minimum()
Parameter(s):	x: float
	y: float
	z: float
	w: float
	v: float
Return:	float

Function Name:	median()
Parameter(s):	x: float
	y: float
	z: float
	w: float
	v: float
Return:	float

Function Name:	firstQuartile()
Parameter(s):	x: float
	y: float
	z: float
	w: float
	v: float
Return:	float

Function Name:	thirdQuartile()
Parameter(s):	x: float
	y: float
	z: float
	w: float
	v: float
Return:	float

where `maximum()` returns the maximum of the parameters, `minimum()` returns the minimum of the parameters, `median()` returns the median of the parameters, `firstQuartile()` returns the first quartile (median of the first half of a sorted ist) of the parameters, and `thirdQuartile()` returns the third quartile (median of the second half of a sorted ist) of the parameters. In the main function,

1. prompt the user to enter five (5) numbers.
2. display the maximum of the numbers.
3. display the third quartile of the numbers.
4. display the median of the numbers.
5. display the first quartile of the numbers.
6. display the minimum of the numbers.

Note: Round solutions to one decimal place.

A possible output of the program is:

```
Enter five numbers:  86 82.5 95.5 80 98


The maximum is 98.0
The third quartile is 95.5
The median is 86.0
The first quartile is 82.5
The minimum is 80.0
```

Green text are inputs.