Practice Exercise #27: Triangle Centroid

http://www.comp.nus.edu.sg/~cs1010/4_misc/practice.html

Reference: Week 8, Exercise #4

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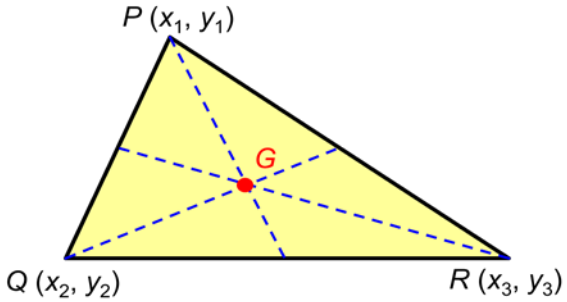
Objective: Function with pointer parameters

Task statement:

In a triangle, a *median* is a line that connects a vertex to the midpoint of its opposite side. The intersection the of 3 medians is called the *centroid*.

In the diagram on the right, the medians are shown as blue dotted lines, and point *G* is the centroid.



Write a program **triangleCentroid.c** to read in the coordinates (of type **float**) of 3 vertices of a triangle and compute the coordinates of its centroid.

Your program should contain a function **centroid()**. You are to decide on its parameters. The function is to pass back the coordinates of the centroid via two address parameters.

There should be no **printf()** statement in your **centroid()** function.

Sample runs:

```
Coordinates of 1st vertex: 0 0
Coordinates of 2nd vertex: 0 1
Coordinates of 3rd vertex: 1 1
Coordinates of centroid = (0.33, 0.67)

Coordinates of 1st vertex: 4.8 12.7
Coordinates of 2nd vertex: -12.3 8.2
Coordinates of 3rd vertex: -5.6 15.3
Coordinates of centroid = (-4.37, 12.07)
```