**11DTP challenge question…preparation for AS91076 (code a program)**

Part 1

Design a program to do the following:

The user of the program keys in three lengths of the three sides of a triangle. The program then produces the following list of options:

* 1. Perimeter of the triangle
  2. Determine whether the triangle is right-angled or not
  3. Area of the triangle

The user executes an option by typing in a 1, 2 or 3.

*Hint*: Use the following formula to determine the area of the triangle – calculated on the three sides.

Area =  where s = half the perimeter

1. Create test data for at least two triangles - (include one right-angled and one not)
2. Create the menu sprite and add in code
3. Add in code for perimeter option and test
4. Add in code for right-angled option and test
5. Add in code for area option and test
6. Add in code to test for invalid data of negative sides
7. Add in code to check if data gives a triangle or not (two sides add to more than third side)

Part 2

Add in code (loop structure) so that the user can repeatedly have the menu option displayed… need an option to quit

Part 3

Add in code (another loop structure) so that the user can repeatedly enter in data for a different triangle and have the menu and options displayed for each new set of data