Python School WB 6

NAME:

Introduction

In this workbook we are going to look at some of actual problems you will get in your GCSE Computing exam. In your exam you will be asked to write an algorithm, that could be pseudo code or a flowchart. In this task you will write the actual program.

An isosceles triangle is a triangle that has at least two equal sides. The diagram below shows examples of isosceles triangles. In each diagram the marked sides are equal.

Write an algorithm for a computer program that determines whether a triangle is an isosceles triangle.

- The user inputs the lengths of the three sides as Length1, Length2 and Length3
- If any two sides have the same length the program outputs "Isosceles"
- Otherwise the program outputs "Not Isosceles"

Look at the requirements of the program and code it up in Python. You need to screenshot your ANNOTATED code and paste it in the box below. Remember to crop and resize your image.

```
def main():
    print("This code is able to tell you if your triangle is isosceles or not
    length1 = int(input(" Please input the first side's length"))
    length2 = int(input(" Please input the second side's length"))
    length3 = int(input(" Please input the final side's length"))
    if length1 == length2 or length1 == length3 or length2 == length3:
        print("The triangle you are thinking of is isosceles")
    else:
        print("Not an isosceles")
    if length1 == length2 == length3:
        print("That triangle isn't an isosceles, it's equilateral")

    answer = input("Do you want to try again? y or n:")
    if answer == "y":
        main()
    if answer == "n":
        quit
    else:
        quit

main()
```

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```
This code is able to tell you if your triangle is isosceles or not
 Please input the first side's length2
 Please input the second side's length4
 Please input the final side's length5
>>>
 RESTART: U:/Year 10/Computing/Classroom Work/Python/Python Workbook
es Triangle.py
This code is able to tell you if your triangle is isosceles or not
 Please input the first side's length2
 Please input the second side's length5
 Please input the final side's length2
Traceback (most recent call last):
  File "U:/Year 10/Computing/Classroom Work/Python/Python Workbook 6.
 Triangle.py", line 6, in <module>
    if length1 == lenth2 or length1 == length3:
NameError: name 'lenth2' is not defined
>>>
 RESTART: U:/Year 10/Computing/Classroom Work/Python/Python Workbook
es Triangle.py
This code is able to tell you if your triangle is isosceles or not
 Please input the first side's length2
 Please input the second side's length5
 Please input the final side's length2
The triangle you are thinking of is isosceles
>>>
 RESTART: U:/Year 10/Computing/Classroom Work/Python/Python Workbook
es Triangle.py
This code is able to tell you if your triangle is isosceles or not
 Please input the first side's length2
 Please input the second side's length2
 Please input the final side's length2
The triangle you are thinking of is isosceles
That triangle isn't an isosceles, it's equilateral
Do you want to try again? y or n:
```