QUIZ 8

COMP9021 PRINCIPLES OF PROGRAMMING

Note: Numeric values will be checked with only 4 digits after the decimal point

```
$ python3
>>> from quiz_8 import *
>>> Point()
...
quiz_8.PointError: Need two coordinates, point not created.
>>> Point(0)
...
quiz_8.PointError: Need two coordinates, point not created.
>>> Point(0, 0, 0)
...
quiz_8.PointError: Need two coordinates, point not created.
>>> Point(0, 0)
Point(0, 0)
>>> print(Point(1, 2))
Point of x-coordinate 1 and y-coordinate 2
>>> p1 = Point(1, 2)
>>> p2 = Point(4, 8)
>>> p3 = Point(2, 4)
>>> Triangle(point_1=p1, point_2=p2, point_3=p3)
...
quiz_8.TriangleError: Incorrect input, triangle not created.
>>> p3 = Point(3, 5)
>>> Triangle(p1, p2, p3)
...
TypeError: Triangle.__init__() takes 1 positional argument but 4 were given
>>> triangle = Triangle(point_1=p1, point_2=p2, point_3=p3)
>>> triangle.perimeter
13.476032868131739
>>> triangle.area
1.5000000000000078
>>> p3 = Point(2, 4)
>>> triangle.change_point_or_points(p3)
...
TypeError: change_point_or_points() takes 1 positional argument but 2 were given
>>> triangle.change_point_or_points(point_3=p3)
Incorrect input, triangle not modified.
>>> triangle.perimeter
13.47603286813179
>>> triangle.area
1.5000000000000078
```

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```
>>> p0 = Point(0, 0)
>>> p3 = Point(0, 4)
>>> triangle.change_point_or_points(point_3=p3, point_1=p0)
>>> triangle.perimeter
18.60112615949154
>>> triangle.area
7.999999999999994
>>> triangle.change_point_or_points(point_2=Point(4, 0))
>>> triangle.area
7.999999999999997
>>> triangle.change_point_or_points(point_3=Point(4, 0))
Incorrect input, triangle not modified.
>>> triangle.change_point_or_points(point_3=Point(4, 8))
>>> triangle.area
16.0
>>> triangle.perimeter
20.94427190999916
```