

QUIZ 7

COMP9021 PRINCIPLES OF PROGRAMMING

```
$ python3
...
>>> pt = Point()
>>> pt.x, pt.y
(0, 0)
>>> Point(0)
...
quiz_7.PointError: Cannot create point.
>>> pt = Point(0, 0)
>>> pt.x, pt.y
(0, 0)
>>> pt = Point(2, 4.6)
>>> pt.x, pt.y
(2, 4.6)
>>> NonVerticalLine()
...
quiz_7.NonVerticalLineError: Cannot create nonvertical line.
>>> NonVerticalLine(pt)
...
TypeError: __init__() takes 1 positional argument but 2 were given
>>> line = NonVerticalLine(point_1=pt)
>>> line.point_1.x, line.point_1.y, line.point_2.x, line.point_2.y
(2, 4.6, 0, 0)
>>> line = NonVerticalLine(point_2=pt)
>>> line.point_1.x, line.point_1.y, line.point_2.x, line.point_2.y
(0, 0, 2, 4.6)
>>> NonVerticalLine(point_1=pt, point_2=pt)
...
quiz_7.NonVerticalLineError: Cannot create nonvertical line.
>>> p1 = Point(1, 2)
>>> p2 = Point(4, 4)
>>> line = NonVerticalLine(point_1=p1, point_2=p2)
>>> line.slope
0.6666666666666666
>>> line.intercept
1.3333333333333335
>>> p3 = Point(1,5)
>>> NonVerticalLine(point_1=p1, point_2=p3)
quiz_7.NonVerticalLineError: Cannot create nonvertical line.
>>> line = NonVerticalLine(point_1=p1, point_2=p2)
>>> line.change_point_or_points()
>>> line.slope
0.6666666666666666
>>> line.intercept
1.3333333333333335
```

```
>>> line.change_point_or_points(point_2=p1)
...
quiz_7.NonVerticalLineError: Cannot perform this change.
>>> line.slope
0.6666666666666666
>>> line.change_point_or_points(point_2=p3)
...
quiz_7.NonVerticalLineError: Cannot perform this change.
>>> line.slope
0.6666666666666666
>>> p4 = Point(6,2)
>>> line.change_point_or_points(point_2=p4)
>>> line.slope
0.0
>>> line.intercept
2.0
>>> p5 = Point(3,1)
>>> line.change_point_or_points(point_1=p5)
>>> line.slope
0.3333333333333333
>>> line.intercept
0.0
>>> line.change_point_or_points(point_1=p4)
...
quiz_7.NonVerticalLineError: Cannot perform this change.
>>> line.slope
0.3333333333333333
>>> line.change_point_or_points(point_1=p2, point_2=p1)
>>> line.slope
0.6666666666666666
>>> line.intercept
1.3333333333333335
```