assignment_four

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1 Assignment Four

Classes and modules

1.1 Tasks 1 and 2 combined

Create a triangle class, test its functionality, and reorganize the Geometries into a package.

If any tests fail, they will throw an exception. The lack of error messages indicates all code runs correctly.

[ ]:
```
from Geom import Circle, Square, Triangle
from random import seed
```

[ ]:
```
"""Use seed to make random functions always return predicted values"""
seed(2)

def test_square_area():
    side = 8
    test_sqr = Square(side)
    expected_area = 64
    assert(test_sqr.area() == expected_area)

test_square_area()

def test_square_string():
    side = 2
    test_sqr = Square(side)
    expected_str = "Name: Bill, Color: RED, Area: 4"
    assert(test_sqr.makeString() == expected_str)

test_square_string()

def test_create_circles():
    circles = [Circle(i) for i in range(2,4)]
    [one, two] = circles
```

```
    exp_one_str = "Name: Sally, Color: PURPLE, Area: 12.566370614359172"
    exp_two_str = "Name: Hussain, Color: RED, Area: 28.274333882308138"
    assert(one.makeString() == exp_one_str)
    assert(two.makeString() == exp_two_str)

test_create_circles()

def test_create_triangle():
    triangle = Triangle(3,6)
    exp_str = "Name: Tamica, Color: PURPLE, Area: 9.0"
    assert(triangle.makeString() == exp_str)

test_create_triangle()
```

1.2 Addendum

"The evidence of my code working is that it doesn't output anything" is pretty lame. So, here's some actual output.

[ ]:
```
my_circle = Circle(4)
my_circle.print_name()

my_square = Square(5)
my_square.print_name()

my_triangle = Triangle(2,3)
my_triangle.print_name()
```

```
My name is  Josh and my color is  PURPLE
My name is  Lammar and my color is  RED
My name is  Lammar and my color is  RED
```

Today's homework is brought to you by "My Triangle" by James Blunt