a)
```
def coeffs(points):
        xsum = 0
        ysum = 0
        for point in points:
                xsum += point[0]
                ysum += point[1]
        xavg = xsum / len(points)
        yavg = ysum/ len(points)
        numerator = 0
        denominator = 0
        for point in points:
                numerator += (point[0] - xavg) * (point[1] - yavg)
                denominator += (point[0] - xavg) ** 2

        return numerator/denominator

points = [[1,1],[2,2],[4,2],[5,3]]
print(coeffs(points))
```

Returns 0.4

b)
```
def rsquared(points):
        yhat = coeff(points)
        ysum = 0
        for point in points:
                ysum += point[1]
        ybar = ysum/ len(points)

        numerator = 0
        denominator = 0
        for point in points:
                numerator += (point[1] - yhat) ** 2
                denominator += (point[1] - ybar) ** 2
        return numerator/denominator

points = [[1,1],[2,2],[4,2],[5,3]]
print(rsquared(points))
```
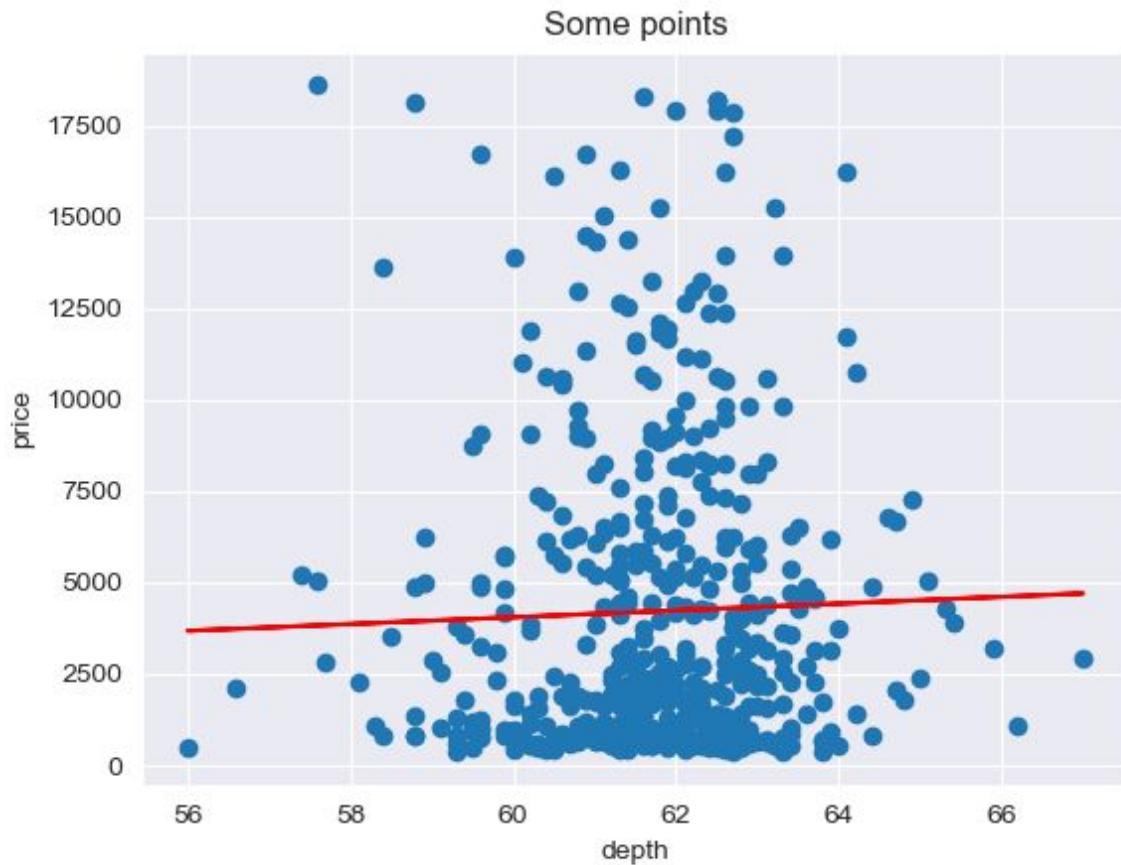
Returns 6.12

c)
This is heavily based off of the code from class, I change the axes being plotted, the title, and the axis labels.

Figure 1   — □ ✕

Some points

2.
a)

69.423	23.217
23.217	9

b)-d) code would be the same as for the same exercises in part 1