**ECO 2200 Quiz 1**

1. The information below is on 5 individuals. The variable *x* denotes the number of donuts consumed per week; *y* represents weight in pounds. Find the correlation coefficient between *x* and *y*.

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| --- | --- | --- | --- | --- | --- | --- |
| Obs. No. | x | y |  |  |  |  |
| 1 | 5 | 75 |  |  |  |  |
| 2 | 20 | 125 |  |  |  |  |
| 3 | 10 | 160 |  |  |  |  |
| 4 | 15 | 240 |  |  |  |  |
| 5 | 0 | 200 |  |  |  |  |
| Total: |  |  |  |  |  |  |

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2. Suppose, in a future job, you are asked to calculate a correlation coefficient between a product’s sales and advertising expenditure. If you find a correlation coefficient close to zero, would you recommend examining a scatter plot of the data?

3. Can you provide an example of 2 variables x and y where the variables are correlated but one does not cause the other?