

L11QUE: Quantitative Economics
L11QUM: Quantitative Methods
L11MES: Mathematical and Economic Statistics

Tutorial 1

1. The time (in seconds) that a sample of employees took to complete a task is:

14 28 40 13 25 27 20 29 49 66

Find the following for this data:

- (a) Arithmetic mean
 - (b) Median
 - (c) Variance
 - (d) Standard deviation
 - (e) Coefficient of variation (L11QUE/MES students only)
2. Consider the following sample of prices of certain goods and quantities sold.

Price	Quantity
£10	100
£15	90
£20	75
£25	50
£30	0

- (a) Sketch a scatter plot of price (along the x-axis) and quantity (along the y-axis). Do you think these two variables will have a negative covariance, a positive covariance, or zero covariance?
 - (b) Compute and interpret the covariance and the correlation coefficient.
3. Out of a group of 20 people, 15 enjoy cycling and 8 enjoy reading. 2 of them enjoy neither cycling nor reading. How many people enjoy both cycling and reading?
4. A committee of two members is to be chosen from a group of 4 male and 2 female candidates. If the choice is made randomly, what is the probability that both members are male? (Hint: define ‘the first member is male’ and ‘the second member is male’ as two events A and B).