

Statistics 5: Scatter Graphs

LEARNING WORK:

Students revise:

- How to find the correlation co-efficient, r on your calculator
- How to interpret the correlation co-efficient

Questions for class:

Example 1:

The age and number of penalty points of 8 drivers was recorded:

Age of driver	50	61	18	22	29	30	39
Number of penalty points	3	0	0	3	6	9	3

- Illustrate this data on a scatter graph.
- Draw the line of best fit
- Estimate the slope of the line of best fit
- Use your calculator to find r , the correlation co-efficient and comment on the significance of this correlation co-efficient in the context of the question

Question 1:

The number of hours spent on social media per day
and the average result in school exams was recorded for ten students

Hrs on Social Media/day	1	4	0.2	5	2	1	0	3	0.5	1
Average result	69	49	52	58	84	92	75	89	73	87

- Illustrate this data on a scatter graph.
- Draw the line of best fit
- Estimate the slope of the line of best fit
- Use your calculator to find r , the correlation co-efficient and comment on the significance of this correlation co-efficient in the context of the question

Questions from GKTuition Tutorials:

Example 1:

The height and weight of 7 people was recorded:

Weight(kg)	80	80	75	65	70	88	77
Height(cm)	184	180	180	170	175	185	175

- (i) Illustrate this data on a scatter graph.
- (ii) Draw the line of best fit
- (iii) Estimate the slope of the line of best fit
- (iv) Use your calculator to find r , the correlation co-efficient
- (v) Comment on the significance of this correlation co-efficient in the context of the question

Question 1:

The weight and top speed of ten cars was recorded:

Weight(kg)	1700	1600	1800	1650	1750	1600	1850	1550	1600	1550
Top Speed(km/hr))	200	230	280	220	180	270	190	270	250	280

- (i) Illustrate this data on a scatter graph.
- (ii) Draw the line of best fit
- (iii) Estimate the slope of the line of best fit
- (iv) Use your calculator to find r , the correlation co-efficient and comment on the significance of this correlation co-efficient in the context of the question