# M1.7 – Use a scatter diagram to identify a correlation between two variables

### Quiz

1. Which of the following is/are appropriate to draw as scatterplots?
2. The mean horn length of two populations of African rhinos
3. The frequency of short-haired and long-haired cats from a cross of two long-haired parents
4. The diameter of oak tree trunks and the average number of leaves per branch
5. The abundance of insects and the fledging weight of lapwing chicks.

1. Plot the following information from the table into a scatterplot – the length of a male peacock’s tail against the number of females he courted in a single breeding season

|  |  |  |
| --- | --- | --- |
| **Peacock** | **Tail length (cm)** | **Number of females courted** |
| 1 | 140 | 1 |
| 2 | 135 | 1 |
| 3 | 156 | 3 |
| 4 | 147 | 4 |
| 5 | 152 | 5 |
| 6 | 164 | 5 |
| 7 | 154 | 4 |
| 8 | 162 | 6 |
| 9 | 139 | 2 |
| 10 | 149 | 3 |
| 11 | 153 | 4 |
| 12 | 159 | 5 |
| 13 | 154 | 5 |
| 14 | 157 | 4 |
| 15 | 161 | 5 |

Add a trendline to this scatter plot and describe the relationship you observe.

1. Describe the relationship observed in this scatterplot charting the weight of female house flies against the number of eggs laid per day.

### Produced in collaboration with the University of East Anglia