





# S1 All Topics Supplementary information

### Data set 1:

In this set of data the numbers are ordered by size. The median of the numbers is 19 and the mean is 19.

4, 8, b, 17, 17, a, 24, 26, 29, 33

# Data set 2:

13, 17, 23, 22, 18, 16, 21, 20, 20, 15, 19

# Data set 3:

| × | 14 | 15 | 16 | 17 | 18 |
|---|----|----|----|----|----|
| f | 5  | 6  | 7  | 8  | 9  |

#### Data set 4:

| × | 0 - 2 | 2 - 5 | 5 - 7 | 7 - 12 | 12 - 20 |
|---|-------|-------|-------|--------|---------|
| f | 5     | 7     | 12    | 11     | 5       |

<u>Data set 5:</u>  $\sum x = 200, \sum (x - \bar{x})^2 = 1764, n = 50$ 

<u>Data set 6:</u>  $s_{xx} = 123, s_{yy} = 456, s_{xy} = 78.9$ 

# Data set 7:

| × | 9  | 3 | 4 | 10 | 8 | 12 | 7 | 11 | 2 | 6 |
|---|----|---|---|----|---|----|---|----|---|---|
| У | 11 | 6 | 5 | 11 | 9 | 13 | 9 | 12 | 4 | 7 |

# Information set A

A bag contains 16 cards, 5 of which are red, 2 are blue and the rest are green. Two cards are drawn at random from the bag.

# Information set B

The table shows the age distribution of members of a youth club:

|       | 11 | 12 | 13 |  |
|-------|----|----|----|--|
| Girls | 12 | 17 | 6  |  |
| Boys  | 5  | 13 | 9  |  |
|       |    |    |    |  |

A member of the youth club is chosen at random.

D is the event "the member chosen is a girl" E is the event "the member chosen is 11 years old"

# Information set C

In a college, the mass, F, of female students is normally distributed with mean 70 kg and standard deviation 3.5 kg. The mass, M, of male students is normally distributed with mean 80 kg and standard deviation 4 kg.

# Information set D

A die is biased so that the probability that it falls on a 3 is 0.2. The die is thrown 15 times.