

Statistical representation answers

Page 4

1 a 13; 6; 2

b ### III

c 50

d Because 21 cars had 1 passenger (21); 13 cars had 2 passengers (26); 8 cars had 3 passengers (24); 6 cars had 4 passengers (24); 2 cars had 5 passengers (10) and $21 + 26 + 24 + 24 + 10 (= 105)$

(1 mark for a partial explanation)

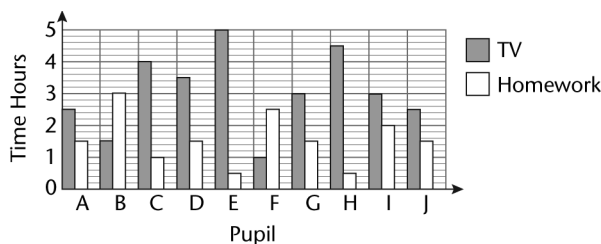
2 a 95; 70

b and

c 305

Page 5

1 a



b 7

c No, student B and student F spent more time doing homework than watching TV

2 a 16 °C

b 10am–11am

c 11am

d 25 °C

e No, anything could happen in four hours, it is too far from the end of the graph

Remember: Check which grade you are working at.

Averages answers

Page 6

- 1 a** 50
b 1
c 2
d 54%
- 2 a i** 64
ii 25
- b i** 924 kg
ii 98 kg (1 mark for $14 \times 87 - 924 (= 294)$)

Page 7

- 1 a** 24
b 2
c 2
d 1.75 (1 mark for total = 42)
e No; they will need 420 spoons
- 2 a i** 46
ii 98
iii 106
- b i** Only 2 people and the lowest value
ii Affected by one extreme value
- c** No; mode does not tell you anything about the total score
- d i** Yes; total is now 1200 rather than 1060
ii Cannot tell as 5 decreased their score

Remember: Check which grade you are working at.

Arranging data answers

Page 8

1 a 2

b 2

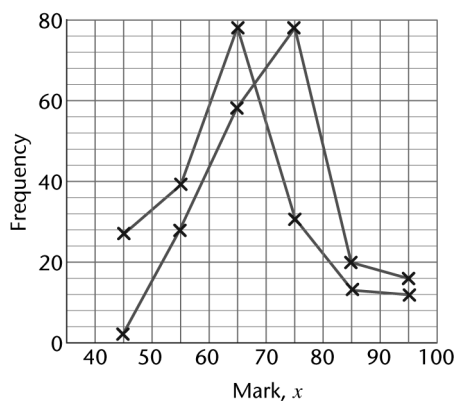
c 1.8

(1 mark for total of 180)

2 a 65

(1 mark for total of 13000)

b



c Girls did better; polygons are about the same shape and girls are about 10 marks better

Page 9

1 a 0 | 7 8 9 9

1 | 1 2 3 3 3 3 5 6 8 9

2 | 1 2 2 3 4 4

b i 130

ii 140

iii 170

2 a 30

b 9.6

(1 mark for 288)

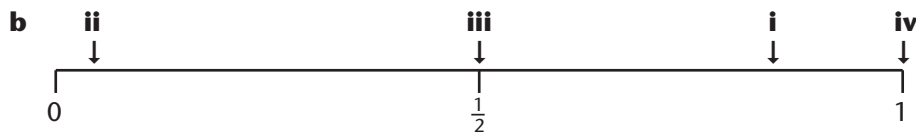
Remember:

Check which grade you are working at.

Probability answers

Page 10

1 a i Impossible ii Very unlikely iii Even iv Very likely/certain



2 a i $\frac{12}{20} = \frac{3}{5}$ ii 0 iii $\frac{8}{20} = \frac{2}{5}$

b 4

Page 11

1 a $\frac{47}{50}$ b 30

2 a Mrs Rogers; she has more tickets b $\frac{5}{900} = \frac{1}{180}$ c $\frac{4}{900} = \frac{1}{225}$ d $\frac{19}{900}$

3 a 0.15, 0.06, 0.18, 0.18, 0.29, 0.14

(1 mark for 4 or 5 correct)

b 5; as this had a much higher relative frequency

Page 12

1 a Sausage, hash browns and beans; sausage, hash browns and toast; bacon, eggs and beans; bacon, eggs and toast; bacon, hash browns and beans; bacon, hash browns and toast

b $\frac{2}{8} = \frac{1}{4}$

2 a 12

b i $\frac{3}{12} = \frac{1}{4}$ ii $\frac{2}{12} = \frac{1}{6}$

c i Top row: 2, 4, 6, 8, 10, 12; bottom row: 0, 1, 2, 3, 4, 5 ii $\frac{3}{12} = \frac{1}{4}$

Page 13

1 a As $2 + 3 = 5$; the probability of red is $\frac{2}{5}$

b 12

c 80

2 a 22

b PE

c Maths $\frac{5}{12} \approx 42\%$; Science $\frac{7}{18} \approx 39\%$

d $\frac{12}{40} = \frac{3}{10}$

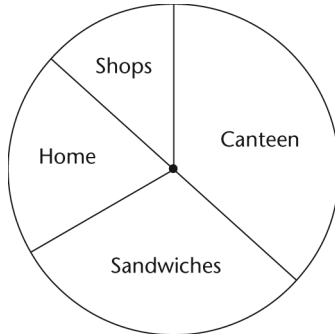
Remember: Check which grade you are working at.

Pie charts answers

Page 14

1 a 132° ; 108° ; 72° ; 48° (1 mark for any frequency $\times 6$)

b



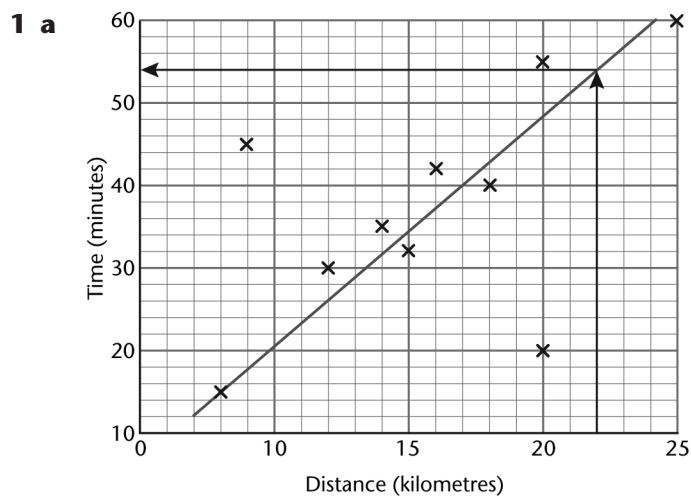
(1 mark for sectors)
(1 mark for labels)

c 160

Remember: Check which grade you are working at.

Scatter diagrams answers

Page 15



(1 mark for 8 or 9 values correctly plotted)

b i G

ii I

c (See graph)

d 54 minutes

Remember: Check which grade you are working at.

Surveys answers

Page 16

1 a

	Boys	Girls
$0 < \text{time (hours)} \leq 4$		
$4 < \text{time (hours)} \leq 6$		
$6 < \text{time (hours)} \leq 8$		
$8 < \text{time (hours)} \leq 10$		
More than 10 hours		

(1 mark for times or for boys/girls)

b Not really; the difference is not that large and the sample of girls was too small

2 a 94.80p

b 2006; price index shot up

c Faster; petrol has increased by 58%

Remember: Check which grade you are working at.