9.5 Statistics: Pie Charts and the Mean: 30-minute Pack

Calculators not allowed · about 30 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Freya records the books read each week over 4 days: 17, 14, 15, 14.

On the next day Freya does 23. What is the mean of all 5 days?

Answer: ___

(2)

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2 Freya records the minutes spent on homework each night over 5 days: 14, 8, 9, 12, 12.

On the next day Freya does 21. What is the mean of all 6 days?

Answer: ___

(2)

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3 Here are 7 ages of children in a team: 21, 27, 21, 33, 29, 21, 23.

What is the mean?

Answer: ___

(2)

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4 A school club survey is shown.

Boys: 30 chose Chess, 23 chose Drama
Girls: 30 chose Chess, 12 chose Drama

How many boys were surveyed?

Answer: ___

(2)

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5 The table shows the number of books borrowed for four groups.

Year 3: 619
Year 4: 815
Year 5: 754
Year 6: 602

How many more books were there for Year 5 than for Year 3?

Answer: ___

(2)

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6 The table shows the litres of rain for four groups.

Red: 532
Blue: 830
Green: 703
Yellow: 169

What is the total for all four groups?

Answer: ___

(2)

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7 A school club survey is shown.

Boys: 18 chose Art, 9 chose Music
Girls: 24 chose Art, 14 chose Music

How many more pupils chose Art than Music?

Answer: ___

(2)

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8 The table shows the number of books borrowed for four groups.

Bus: 624
Car: 890
Walk: 617
Bike: 297

How many books were there for Car and Walk together?

Answer: ___

(2)

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9 Poppy records the books read each week over 3 days: 21, 22, 20.

On the next day Poppy does 27. What is the mean of all 4 days?

Answer: ___

(2)

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10 A school has 200 pupils. A pie chart of favourite break snacks shows crisps 25% and fruit 35%. How many pupils chose either crisps or fruit?

(2)

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11 A pie chart has angles that represent numbers of books read. One sector has angle 90 degrees. The full pie represents 360 degrees and 48 books in total. How many books does the 90 degree sector represent?

(2)

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12 A line graph shows the temperature in degrees Celsius at different times. The points on the graph are: 8:00 = 10, 9:00 = 7, 10:00 = 4, 11:00 = 2, 12:00 = 1, 13:00 = 3.

Between which two consecutive times was the greatest increase? Write the earlier time.

Answer: ___

(2)

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13 A line graph shows the water in a tank in litres at different times. The points on the graph are: 8:00 = 18, 9:00 = 15, 10:00 = 18, 11:00 = 24, 12:00 = 29, 13:00 = 26.

What was the value at 8:00?

Answer: ___ litres

(1)

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Mark scheme · 9.5 Statistics: Pie Charts and the Mean: 30-minute Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

total 83 seen	M1
16.6 cao	A1

Answer: **16.6**

Question 2

total 76 seen	M1
12 2/3 or 38/3 cao (accept 12.7 or better)	A1

Answer: **12 2/3**

Question 3

175 seen	M1
25 cao	A1

Answer: **25**

Question 4

adds both boys' values	M1
53 cao	A1

Answer: **53**

Question 5

subtraction seen	M1
135 cao	A1

Answer: **135**

Question 6

adds at least two values	M1
2,234 cao	A1

Answer: **2,234**

Question 7

both totals found	M1
19 cao	A1

Answer: **19**

Question 8

addition seen	M1
1,507 cao	A1

Answer: **1,507**

Question 9

total 90 seen	M1
22.5 cao	A1

Answer: **22.5**

Question 10

200 x (25% + 35%) or 200 x 0.6 seen	M1
120 cao	A1

Answer: **120**

Question 11

90/360 x 48 seen (or equivalent fraction method)	M1
12 cao	A1

Answer: **12**

Question 12

compares the changes	M1
12:00 cao	A1

Answer: **12:00**

Question 13

18 litres cao	B1

Answer: **18 litres**

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