Test - Pie charts, line graphs and the mean

Year: Year 6 · Duration: 40 minutes · /20

Name:	Date:	**Mark: /20**

Question	1	2	3	4	5	Total
marks	3	4	4	4	5	**20**
Mark						

Show your working.

Question 1 (3 marks)

Question 1 – Pie chart angles

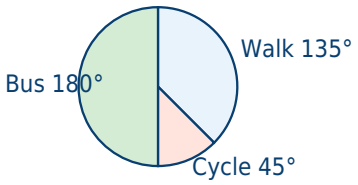
60 pupils choose a favourite colour: red 24, blue 18, green 12, yellow 6.

a. How many degrees stand for each pupil?
b. Work out the angle for each colour.
c. Check that your angles add up to 360°.

Question 2 (4 marks)

Question 2 – Reading a pie chart

A pie chart shows how 80 children travel to school. The angle for walking is 135°, for cycling 45° and for the bus 180°.

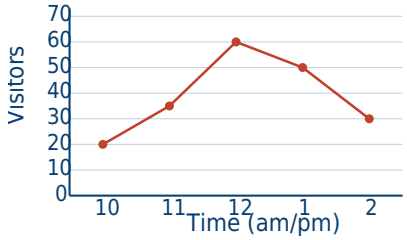


a. How many children does each degree stand for?
b. How many children walk?
c. How many children travel by bus?
d. What fraction of the children cycle? Give your answer in its simplest form.

Question 3 (4 marks)

Question 3 – Reading a line graph

The graph shows the number of visitors at a museum each hour.



a. How many visitors were there at 12?
b. At what time was the museum busiest, and how many more visitors were there than at 10?
c. What was the mean number of visitors per hour?
d. Estimate the number of visitors halfway between 11 and 12.

Question 4 (4 marks)

Question 4 – The mean

a. Find the mean of 6, 9, 12, 5 and 8.
b. The mean of four numbers is 15. Three of them are 12, 18 and 14. Find the fourth number.
c. A pupil has a mean score of 14 over five tests. What is the total score?
d. In the sixth test she scores 20. What is her new mean score?

Question 5 (5 marks)

Question 5 – The sports club survey

A sports club has 120 members. The table shows the number of members that choose each sport.

Sport	Number of members
Swimming	40
Tennis	30
Football	35
Badminton	15

a. Work out the angle for each sport in a pie chart.
b. What fraction of members choose football? Give the answer in its simplest form.
c. The club has 3 sessions each week. The numbers of members who came were 28, 35 and 42. Work out the mean number per session.
d. Next week the club wants the mean number per session to be 40. How many members are needed at the third session if 38 came to the first and 36 to the second?