Calculating the Mean

OUTCOME DS 3.1

1. Look at this data.

Standing Long Jumps

Name	Daniel	Cobar	Chen	Shukla	Ali	Rachel
Distance	185 cm	213 cm	176 cm	151 cm	198 cm	223 cm

a. Calculate the mean. _____ **b.** Who is closest to the mean? _____

2. Work in a group to collect data for each table below. Then complete the sentences.

a.

Length of Stride

Name						
Distance	_____ cm	_____ cm	_____ cm	_____ cm	_____ cm	_____ cm

The mean is _____. _____ is closest to the mean.

b.

Length of Arm Span

Name						
Distance	_____ cm	_____ cm	_____ cm	_____ cm	_____ cm	_____ cm

The mean is _____. _____ is closest to the mean.

c.

Distance Around the Wrist

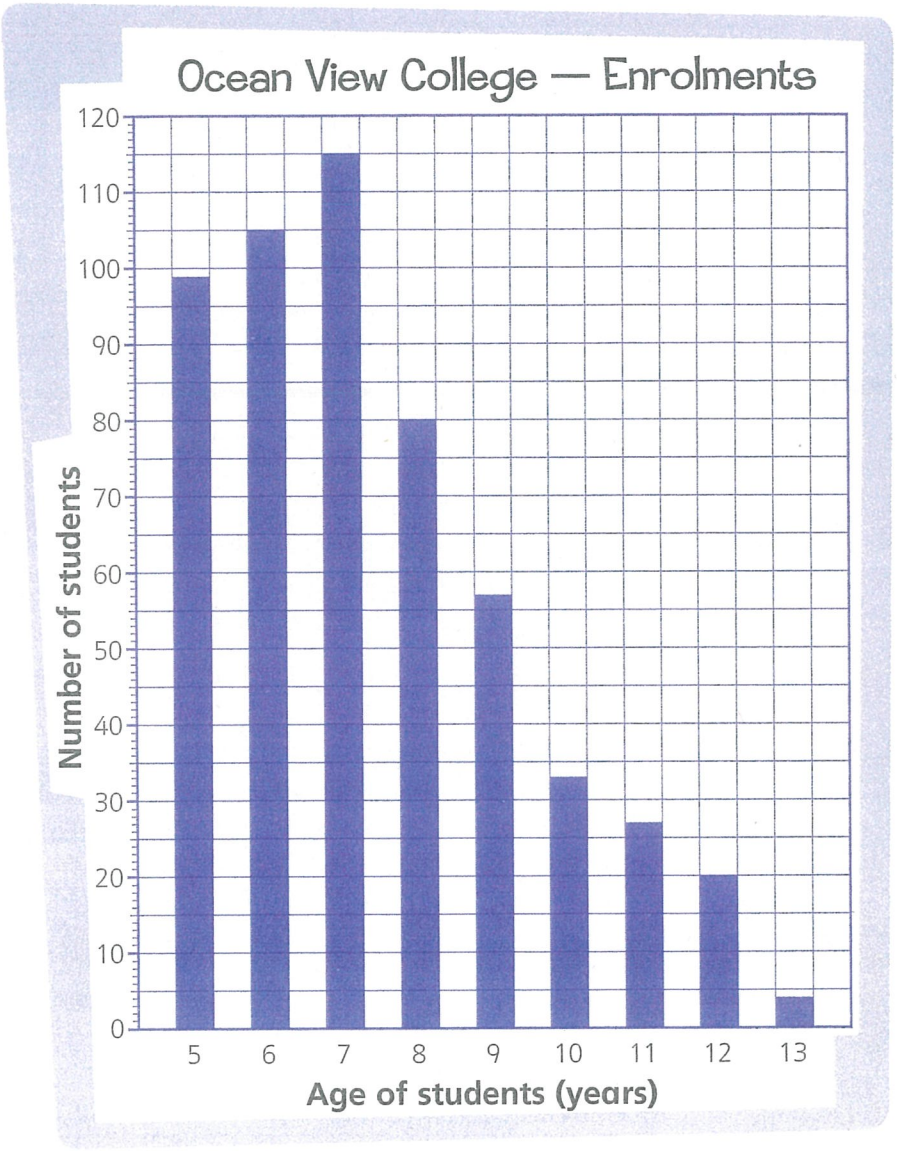
Name						
Distance	_____ cm	_____ cm	_____ cm	_____ cm	_____ cm	_____ cm

The mean is _____. _____ is closest to the mean.

FF **Explain what might happen to the mean if other people are added to the group.**

Interpreting a Column Graph

OUTCOME DS 3.1



1. Which age group has about 60 students?

_____

2. Which age group has slightly more than 30 students?

_____

3. Which age group has slightly fewer than 100 students?

_____

4. Which age group has the greatest number of students?

_____

5. How many students are enrolled in each of these age groups?

   a. 6 year olds _____

   b. 9 year olds _____

   c. 11 year olds _____

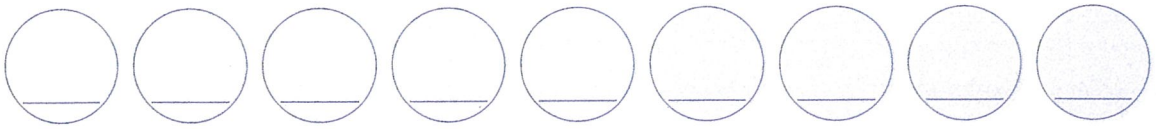
6. What pattern do you notice about the number of students enrolled?

_____

7. a. Calculate the mean number of students. _____

   b. Draw a line on the graph to show where the mean falls.

8. Write the number of students in each age in order from least to greatest.



FF **Write three comparison questions about the data in the graph for Question 6.**

Plotting Points that Relate to a Rule

OUTCOME DS 3.1

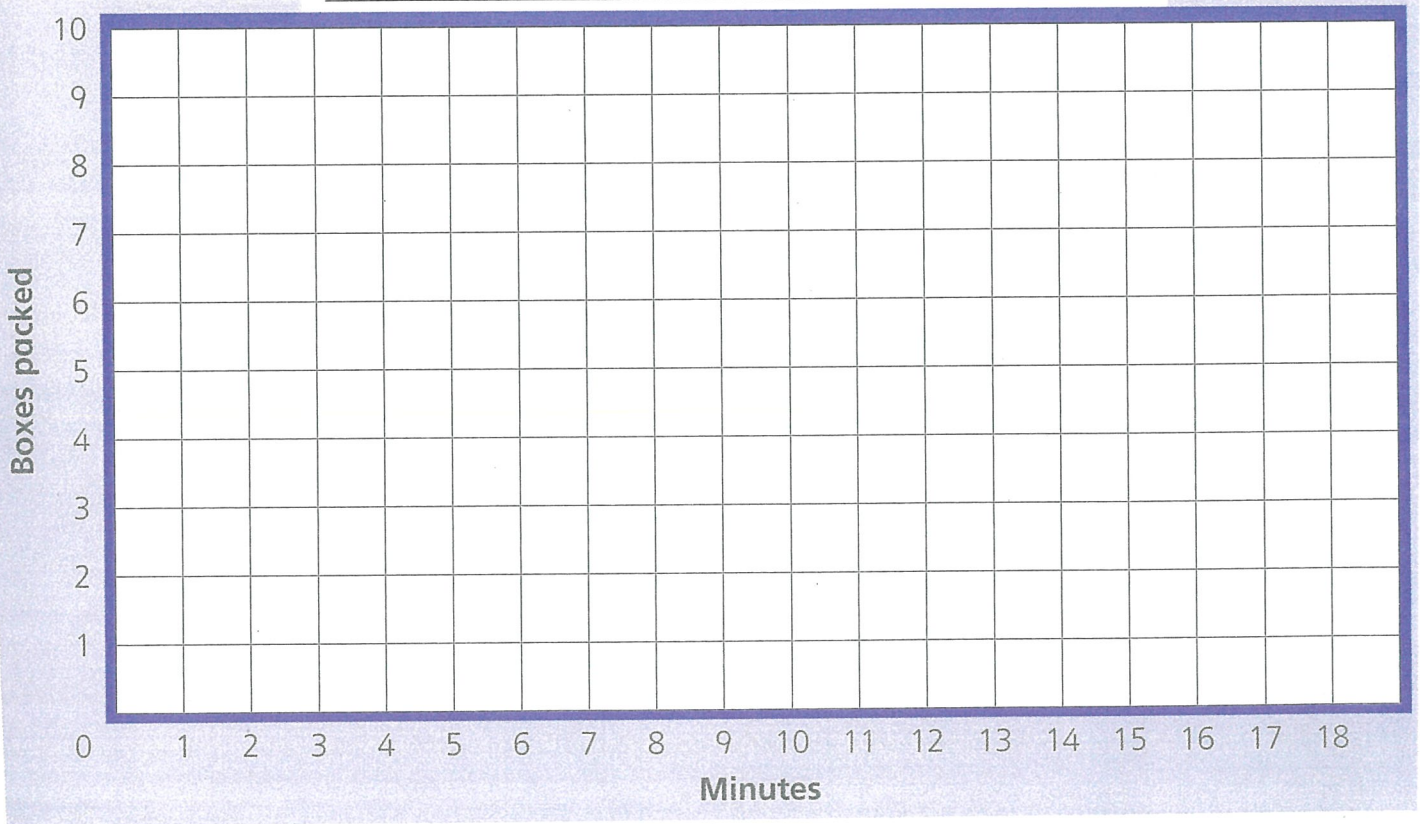
This table shows how long it takes to pack boxes at a factory.

Minutes	2	4	6	8	10	12			
Boxes packed	1	2	3	4	5	6			

1. Rewrite the data from the table as pairs of numbers..

(2, 1), (_____, _____), (_____, _____), (_____, _____), (_____, _____), (_____, _____)

2. Plot points on the graph to show each pair of numbers. Then write a title for the graph.



3. What do you notice about the points? _____

4. Use a ruler to connect the points. How far could the line be continued? _____

5. Extend the line to fill the graph. Complete the table at the top of the page.

6. Write a rule you can use to calculate the number of boxes packed when you know the number of minutes. _____

7. How many boxes would be packed in

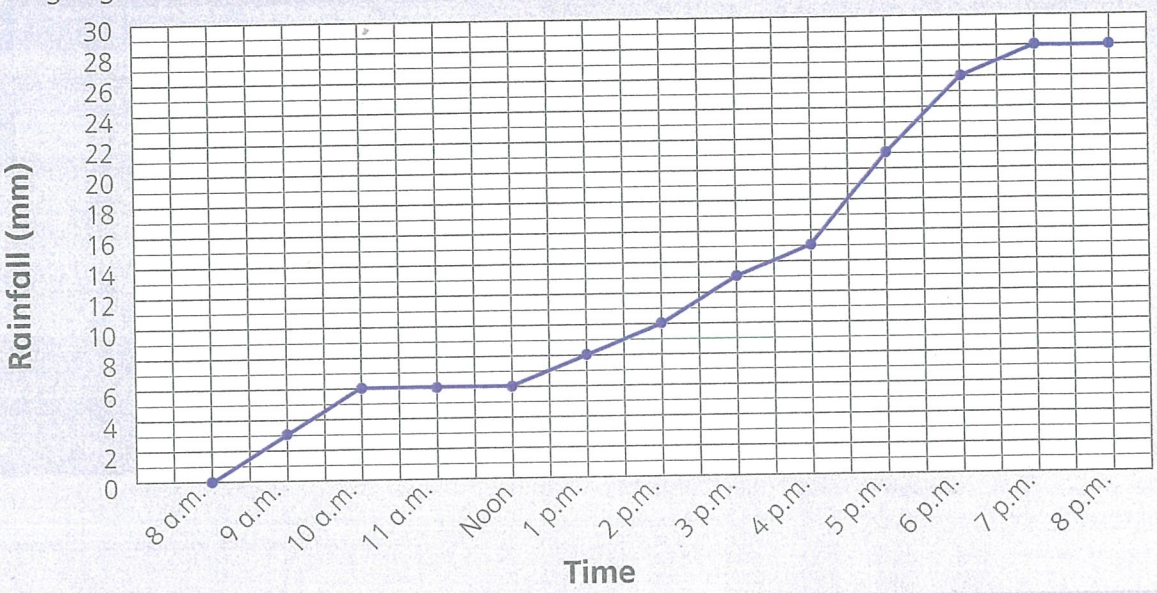
a. 1 hour? _____ **b.** 2 hours? _____ **c.** 3 hours? _____

FF **Use your rule in Question 6 to calculate how many minutes it would take to pack 30 boxes.**

Interpreting and Constructing a Line Graph

OUTCOME DS 3.1

A rain gauge was checked each hour over a 12-hour period. The results are shown in this graph.



1. **a.** How much rain had fallen by noon? _____

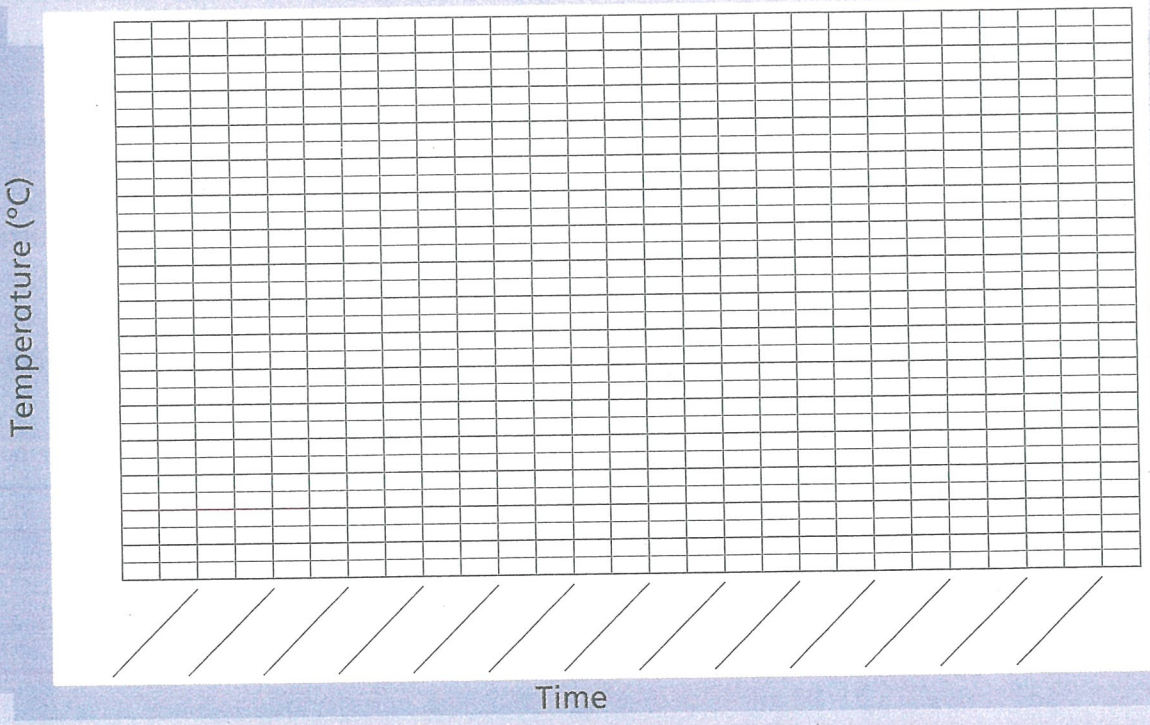
b. How much **more** rain had fallen by 2:00 p.m.? _____

2. Between which **2** hours did most of the rain fall? _____

3. Estimate when half the amount of rain had fallen for the 12-hour period. _____

4. This table shows temperatures recorded each hour over a 12-hour period.
Construct and label a line graph below to show the results.

Time	Temp. (°C)
8 a.m.	14
9 a.m.	17
10 a.m.	20
11 a.m.	24
Noon	26
1 p.m.	27
2 p.m.	29
3 p.m.	30
4 p.m.	30
5 p.m.	28
6 p.m.	25
7 p.m.	23
8 p.m.	19



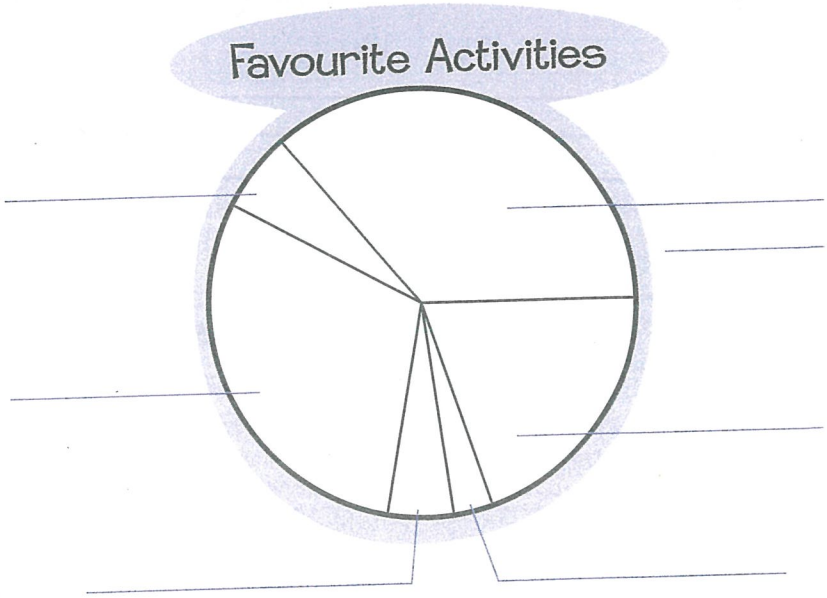
FF **Write why line graphs are best for representing this type of data.**

Interpreting and Constructing a Pie Graph

OUTCOME DS 3.1

1. 100 students were surveyed for the data in this table.

Favourite activity	Percentage of students
Playing computer games	36
Riding bikes	30
Riding horses	20
Fishing	6
Reading	5
Other	3



a. Write the correct label on each segment of the pie graph.

b. Which was the favourite activity of a little more than one-third of the students? _____

c. Which was the favourite activity of exactly one-fifth of the students? _____

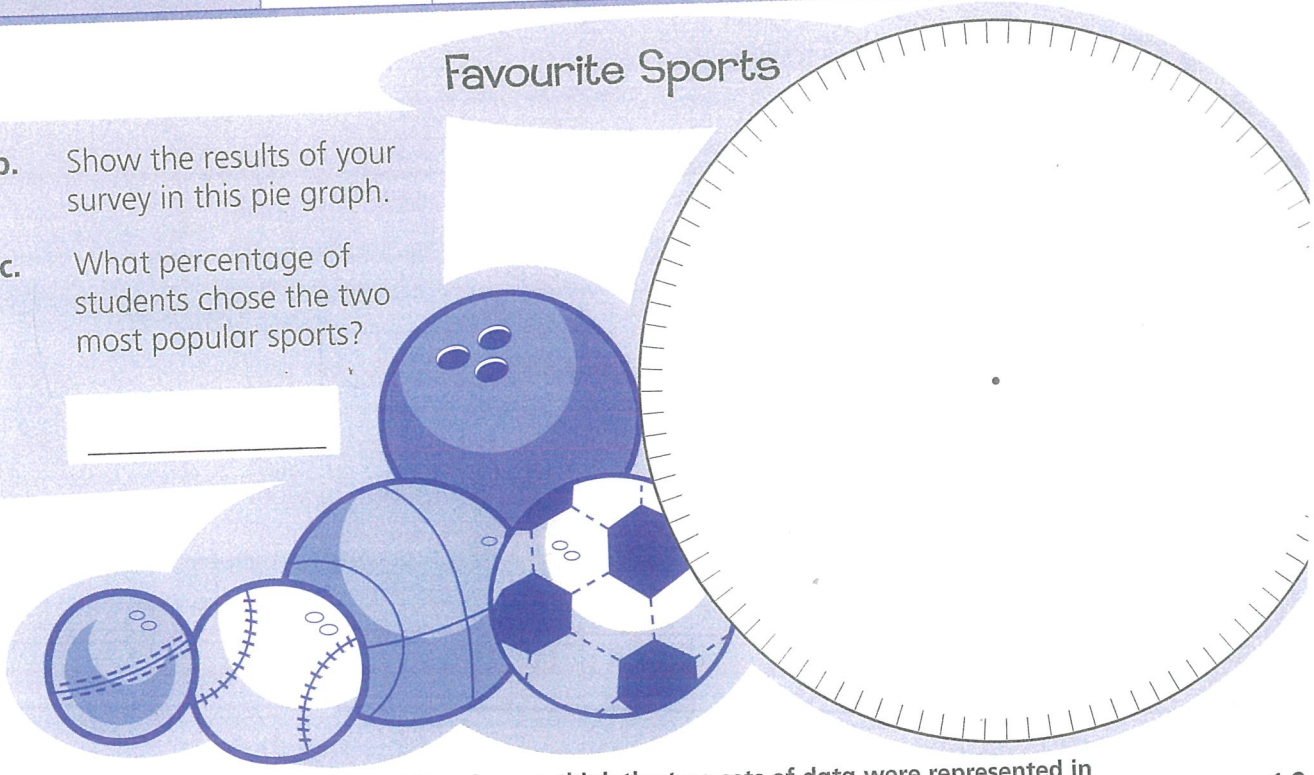
2. a. Survey 100 students to complete this table. Then select the top five sports and group the rest in the 'Other' column.

Favourite sport						Other
Percentage of students						

b. Show the results of your survey in this pie graph.

c. What percentage of students chose the two most popular sports?

_____



FF **Write why you think the two sets of data were represented in pie graphs.**