UNIT 13

Statistics

Revision Notes

1. **Statistics** involves collecting, organising, presenting and intepreting numerical data.

2. Data can be represented in **tabular form** as
   (a) tally charts, and
   (b) frequency tables.

3. Data can also be represented **graphically** as
   (a) pictograms,
   (b) bar graphs,
   (c) pie charts, and
   (d) line graphs.

4. Data collection methods include
   (a) taking measurements,
   (b) conducting surveys, and
   (c) reading results of observations.

Revision Exercise 13

1. A survey was conducted to find out how many hours a class of students spent on revising their Mathematics daily.

Hours	Tally	Number of students
0	||	
1		7
2		14
3	𝍸 ||||	
4	|||	

(a) Complete the tally chart.

(b) How many students were there in the class?

(c) What fraction of the students in the class spent 2 hours or less on revising their Mathematics daily?

2. 20 children were asked to name their favourite colours. The table below shows their choices.

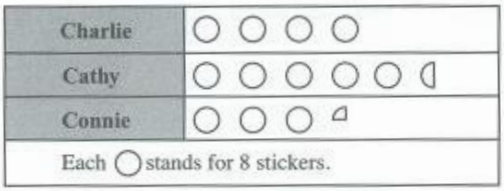
Red	Green	Red	Blue	Yellow
Blue	Blue	Green	Red	Red
Yellow	Green	Red	Blue	Red
Green	Red	Yellow	Yellow	Blue

(a) Organise the data using a tally chart.

(b) Which was the most popular colour?

(c) What percentage of the children liked yellow the most?

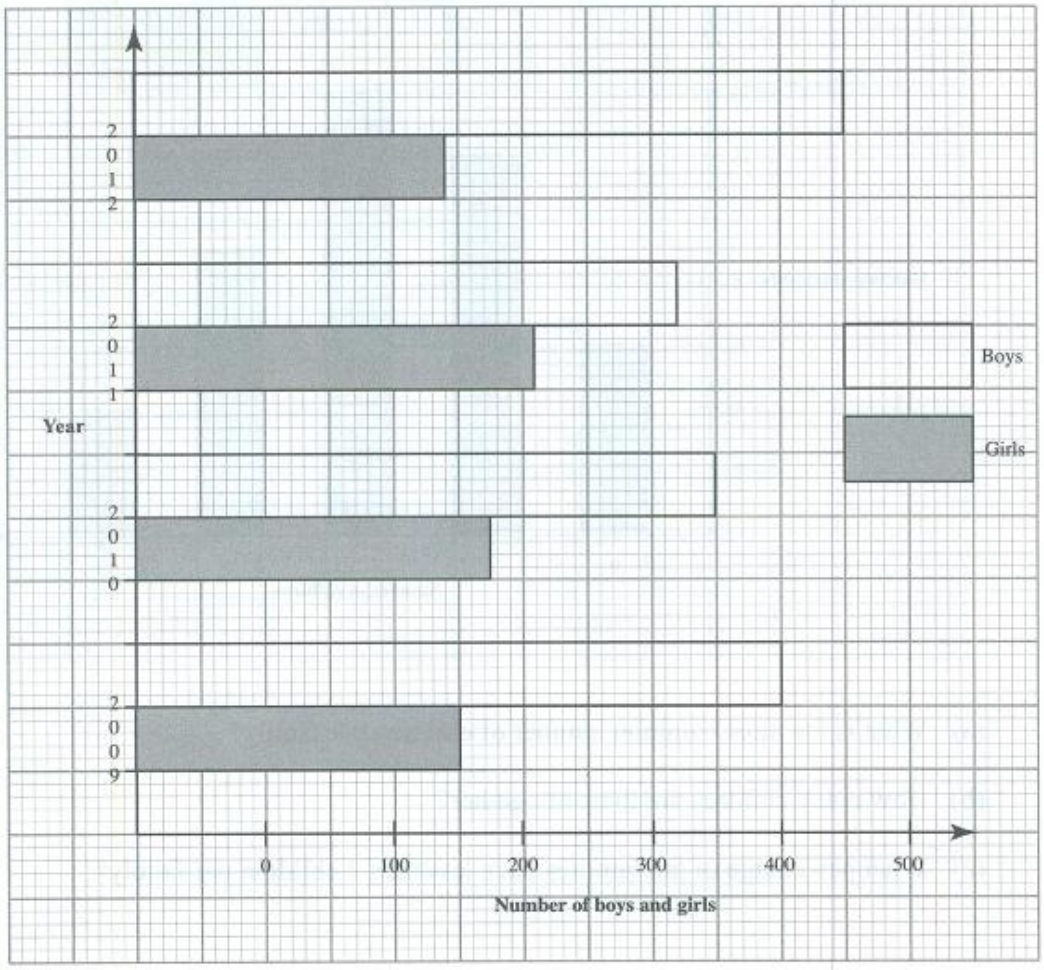
3. The pictogram shows the number of stickers Charlie, Cathy and Connie have.



(a) How many stickers does Connie have?

(b) How many more stickers does Cathy have than Charlie?

6. The bar chart shows the enrolment of boys and girls over a period of 4 years in Xin Xin Secondary School.



Study the bar chart and answer the questions below.

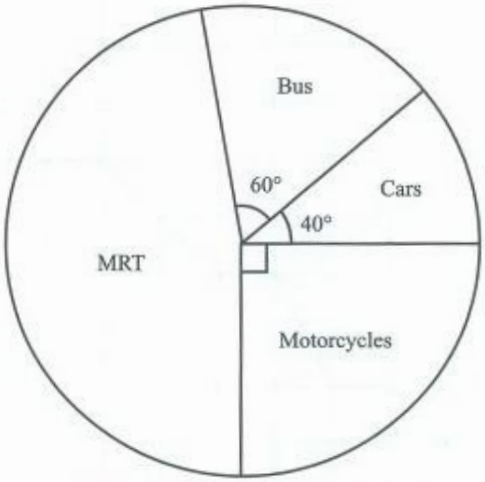
(a) What was the total enrolment in Year 2011?

(b) How many percent of the pupils in Year 2009 were boys?

(c) Which year had the highest enrolment?

(d) Describe the gender mix of Xin Xin Secondary School over the four years.

7. The pie chart shows the mode of transport used by some working adults.



(a) If 45 adults rode motorcycles to work, how many adults
(i) drove to work?
(ii) took the MRT to work?

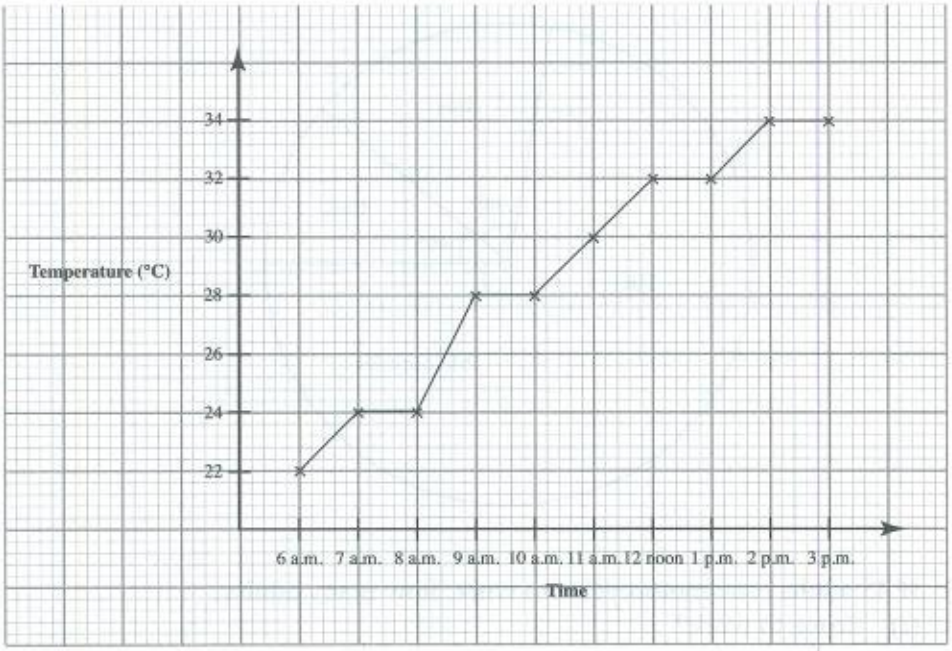
(b) What fraction of the adults took the bus?

8. A fast-food restaurant offers 4 types of value meals: Set A, Set B, Set C and Set D. The table below shows the quantity of each type of value meal sold in a day.

Types of value meal	Set A	Set B	Set C	Set D
Quantity sold	200	120	150	250

If this information is to be represented on a pie chart, calculate the angle representing the sector for Set C.

9. The line graph shows the changes in temperature from 6 a.m. to 3 p.m. on a certain day.



Use the line graph to answer the following questions.

(a) What was the temperature at 11 a.m.?

(b) Between which times was the temperature stable at 24°C?

(c) Describe the change in temperature from 6 a.m. to 3 p.m..

10. The table shows the number of apples sold by a fruit vendor over a week.

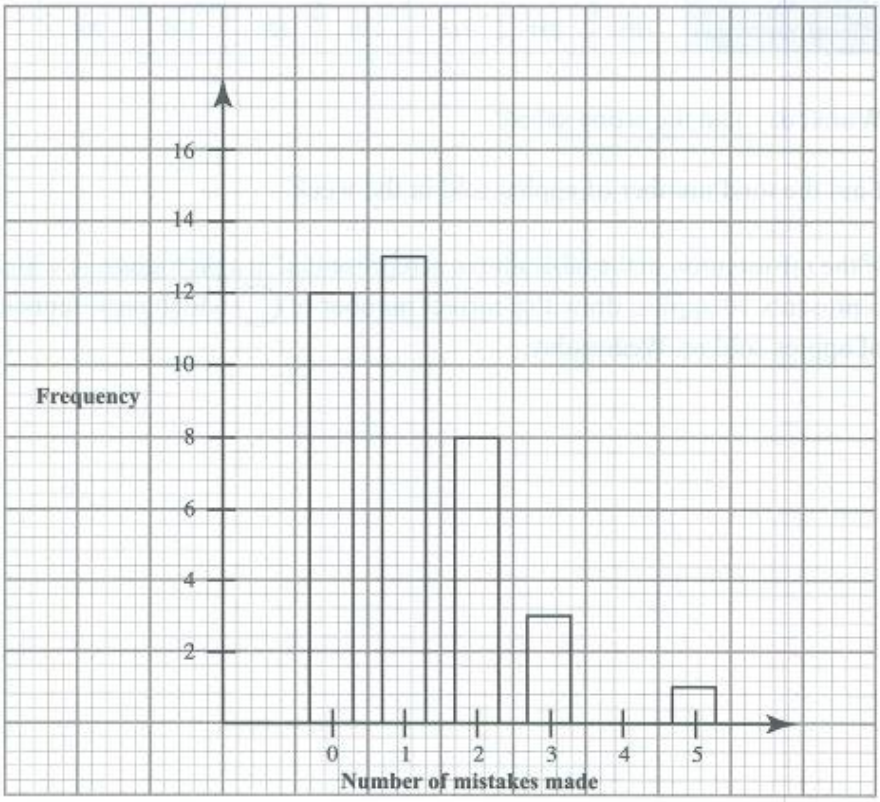
Day	Mon	Tue	Wed	Thur	Fri	Sat	Sun
Number of apples sold	120	100	115	130	125	150	200

(a) Which day had the worst sales?

(b) Find the total number of apples sold in the week.

(c) If the information in the table above is represented in a pictogram in which each ◯ represents 10 apples, draw the correct number of ◯ which represents the number of apples sold on Wednesday.

11. The bar chart below shows the number of mistakes a group of students made in a spelling test.



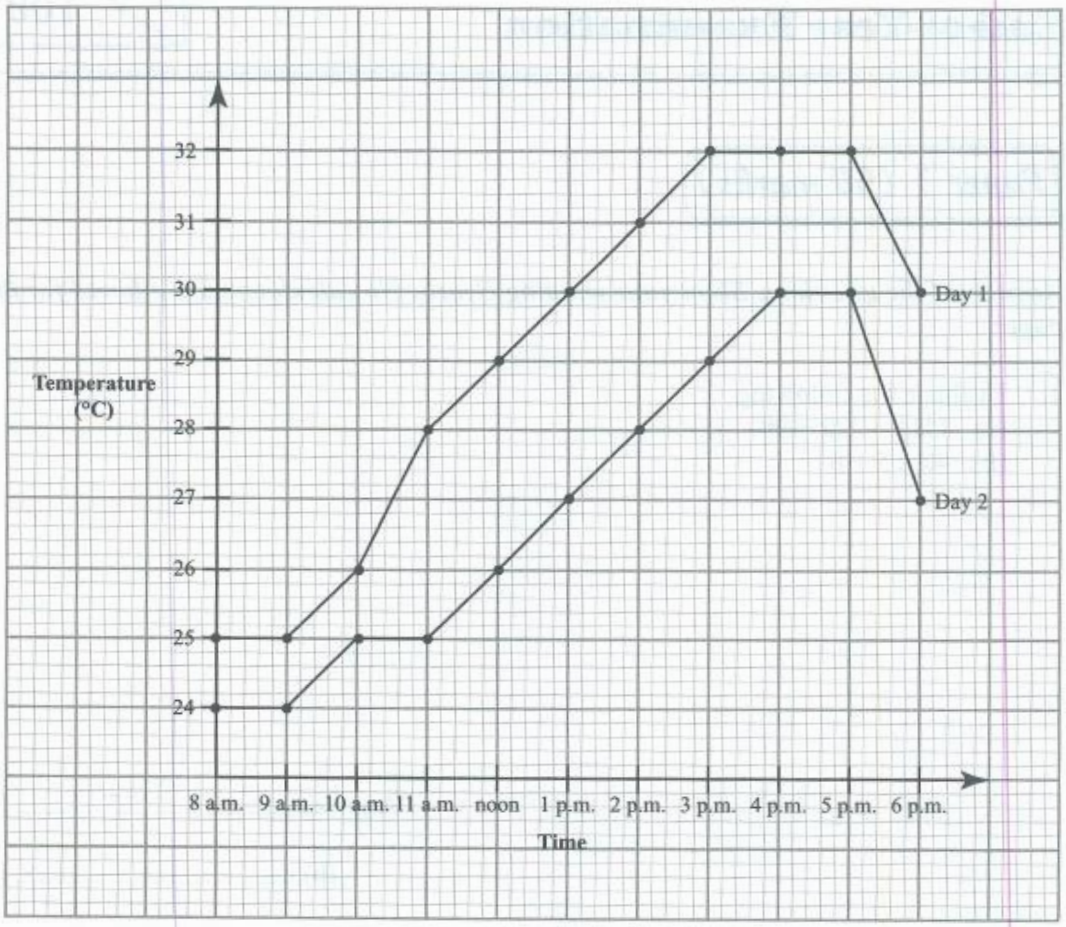
(a) How many students were there in the group?

(b) How many mistakes were made in all?

(c) What percentage of students made 1 mistake or less?

(d) To pass the test, a student should have 2 mistakes or less. What fraction of the students failed the test?

12. The line graph shows the temperature from 8 a.m. to 6 p.m. over 2 days in the month of May.



(a) Which was the hotter day?

(b) What was the difference between the highest and lowest temperatures on Day 2?

(c) Describe how the temperature changed from 8 a.m. to 6 p.m. on Day 1.