

KS3 – Presenting Data

Section A – Tables

Q1 (4 marks)

The colours chosen by 20 students are shown below.

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

Colour	Tally	Frequency
Red		
Blue		
Green		
Yellow		

Complete the frequency table.

Q2 (4 marks)

A class records the number of siblings each student has.

Number of siblings	0	1	2	3	4
Frequency	5	8	6	4	2

Use the table to answer the questions.

- How many students were surveyed?
- How many students have at least 2 siblings?
- Which number of siblings is the mode?

Q3 (4 marks)

The travel methods of 30 students are: Walk 9, Bus 11, Car 6, Cycle 4.

Create a frequency table with suitable headings to show this information.

Q4 (4 marks)

A tally table contains these frequencies: Football 12, Basketball 7, Tennis 5, Swimming 6.

a) How many responses are there altogether?

b) Write the tally for Basketball.

c) Write the tally for Football.

d) Which activity has the lowest frequency?

Section B – Bar Charts

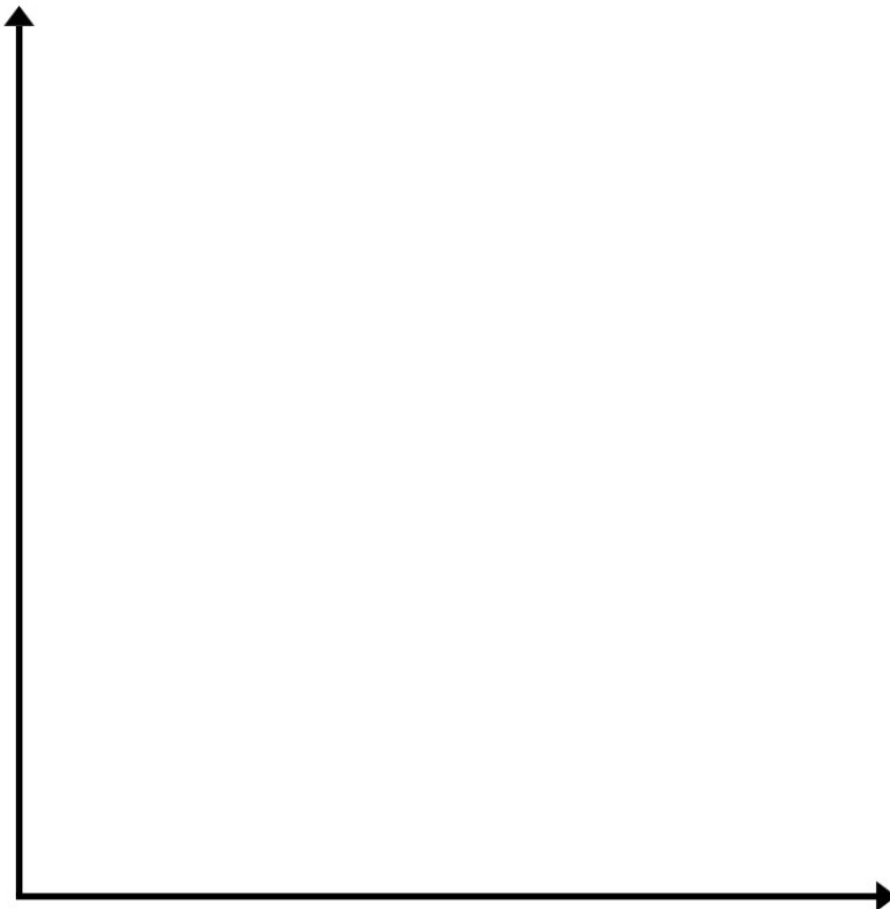
Q5 (6 marks)

The table shows students' favourite fruits.

Fruit	Apple	Banana	Orange	Grapes
Frequency	10	6	8	4

Draw a bar chart to represent the data.

Your chart must include: a suitable title; Fruit on the horizontal axis; Frequency on the vertical axis; a vertical scale from 0 to 12 in intervals of 2; equally spaced bars of equal width.

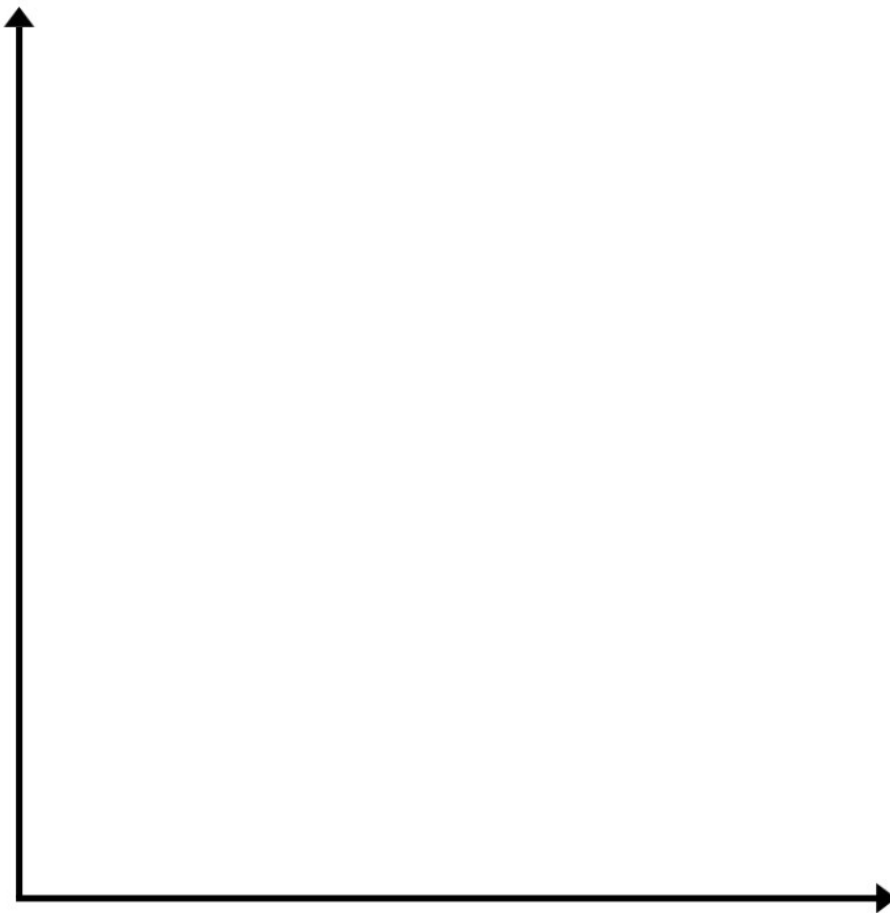


Q6 (6 marks)

A shop sold these numbers of notebooks from Monday to Friday: Monday 8, Tuesday 14, Wednesday 10, Thursday 16, Friday 12.

Draw a bar chart.

Label the horizontal axis Day and the vertical axis Number of notebooks sold. Use a vertical scale from 0 to 16 in intervals of 2. Add a suitable title and draw five separate bars.



Q7 (4 marks)

A bar chart is to show the number of pets owned by students: Dog 9, Cat 7, Fish 4, Other 2.

- a) What should the horizontal axis be labelled?
- b) What should the vertical axis be labelled?
- c) Suggest a sensible maximum value for the vertical scale.
- d) Explain why the bars should not touch.

Section C – Pie Charts

Q8 (4 marks)

A survey of 36 students gives these favourite subjects: Maths 12, English 9, Science 6, Art 9.

Calculate the angle needed for each sector of a pie chart.

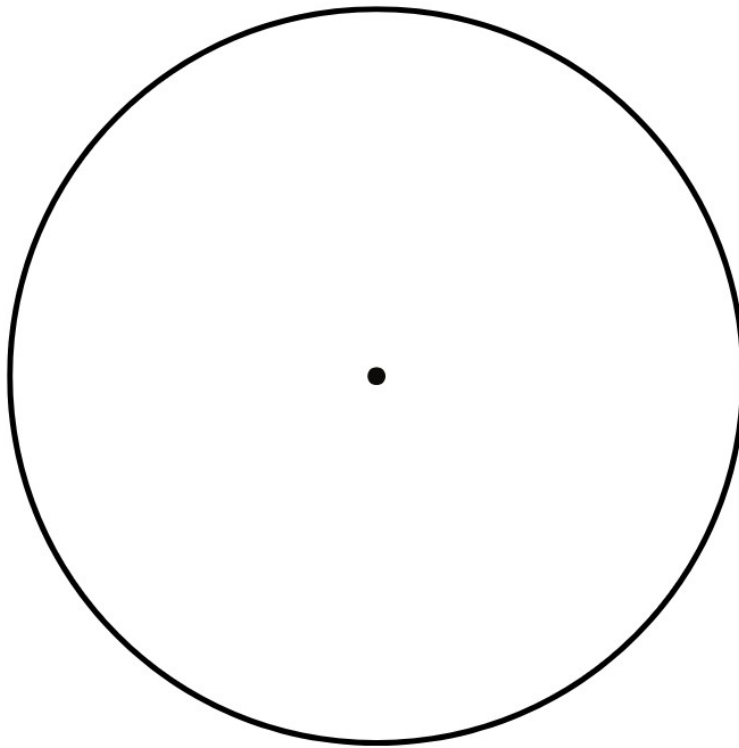
Q9 (6 marks)

The table shows how 40 students travel to school.

Method	Walk	Bus	Car	Cycle
Frequency	12	14	8	6

Calculate each sector angle and then draw a pie chart.

Use the centre point provided. Label every sector and add a suitable title.

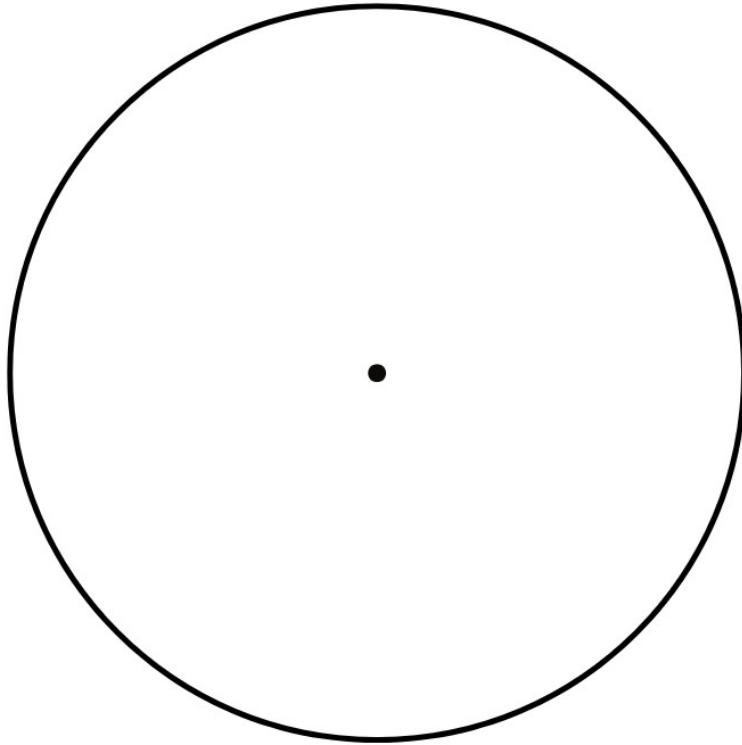


Q10 (6 marks)

A sports club has 60 junior members: Football 25, Athletics 15, Swimming 12, Tennis 8.

Calculate the sector angles and draw a pie chart.

Use the centre point provided. Label every sector and add a suitable title.



Q11 (3 marks)

A pie chart represents 72 people.

a) How many degrees represent one person?

b) A sector has angle 90° . How many people does it represent?

c) A sector represents 18 people. Find its angle.

Section D – Line Graphs

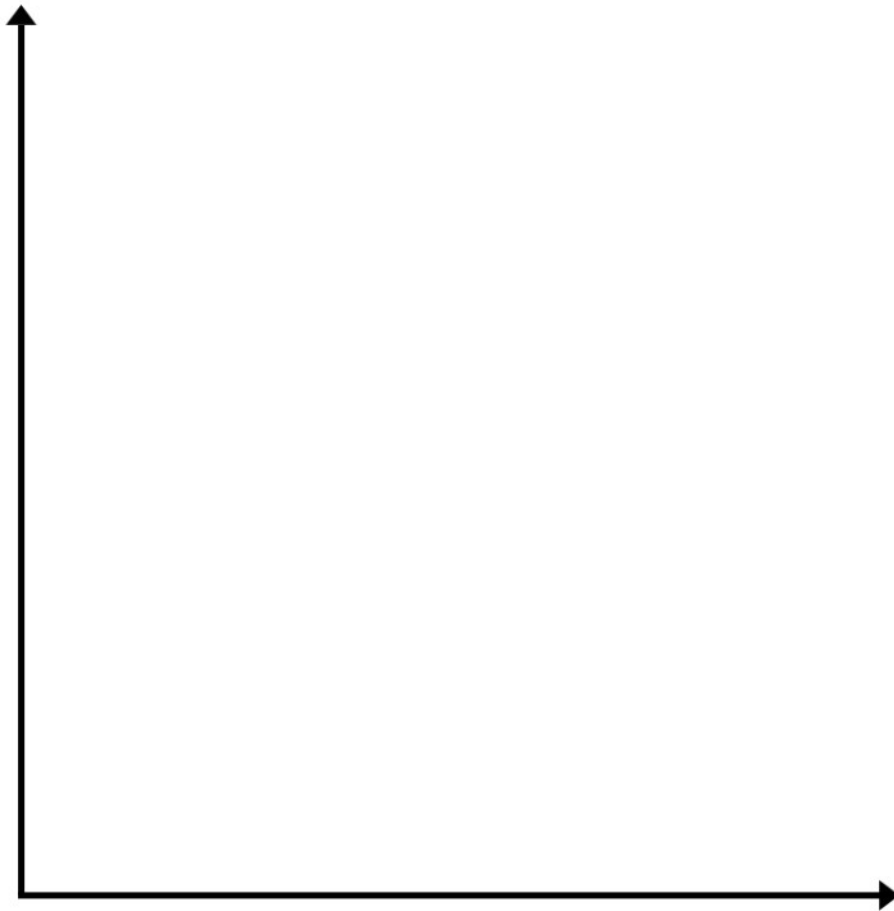
Q12 (6 marks)

The temperature was recorded every two hours.

Time	8 am	10 am	12 pm	2 pm	4 pm	6 pm
Temperature (°C)	8	11	15	18	16	12

Plot the data and join consecutive points with straight lines.

Label the horizontal axis Time and the vertical axis Temperature (°C). Use times 8 am, 10 am, 12 pm, 2 pm, 4 pm and 6 pm. Use a vertical scale from 0°C to 20°C in intervals of 2°C. Add the title Temperature During the Day.



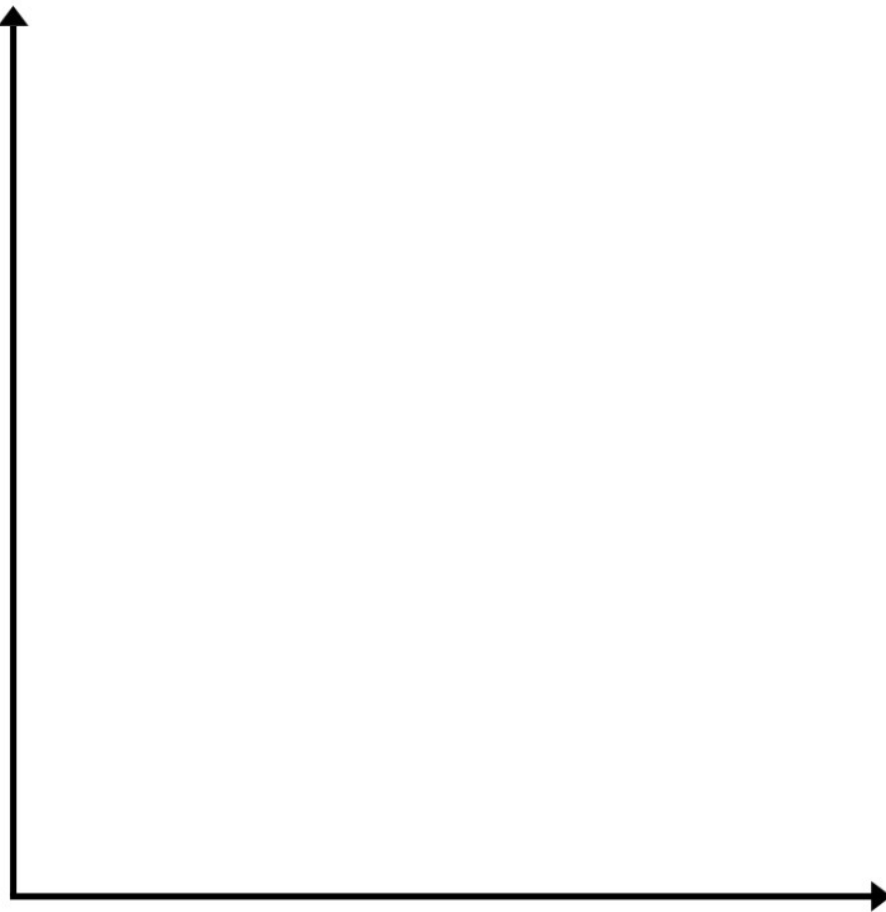
Q13 (6 marks)

The height of a plant was measured at the end of each week.

Week	1	2	3	4	5	6
Height (cm)	5	9	13	18	22	27

Plot the data and join consecutive points with straight lines.

Label the horizontal axis Week and the vertical axis Height (cm). Mark Weeks 1 to 6. Use a vertical scale from 0 to 30 cm in intervals of 5 cm. Add the title Plant Growth.



Q14 (3 marks)

A line graph is being created to show a runner's distance from the start every 5 minutes.

- a) Which variable should go on the horizontal axis?

- b) Which variable should go on the vertical axis?

- c) Why is a line graph suitable for data recorded over time?

Total: ____ / 66

Percentage: ____%