



- 1 20 pupils in a Year 7 class were asked to choose their favourite sport.

F = football, T = tennis, S = swimming, B = basketball, N = netball

F T S F B F T S N B F N T F S B F T N F

- a. Copy and complete the tally chart and frequency table.

Sport	Tally	Frequency
Football		
Tennis		
Swimming		
Basketball		
Netball		

- b. Which sport is the most popular?
c. How many more pupils chose football than tennis?

(3 marks)

a) tally each letter, then count

Football |||| || 7

Tennis |||| 4

Swimming |||| 3

Basketball |||| 3

Netball |||| 3

check the total

$$7 + 4 + 3 + 3 + 3 = 20$$

b) highest frequency

football

c)

$$7 - 4 = 3$$

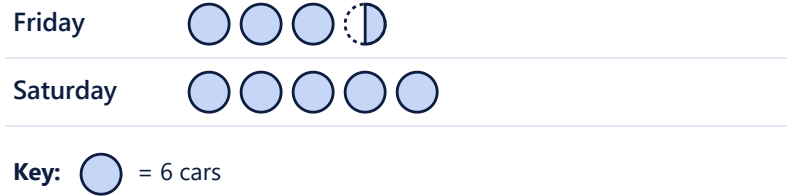
3

2

The pictogram shows the number of cars washed at a garage on Friday and Saturday.

Key: ● represents 6 cars

Work out how many more cars were washed on Saturday than on Friday.



(2 marks)

Friday

3 full circles and 1 half circle = $18 + 3 = 21$ cars

Saturday

5 full circles = 30 cars

Difference

$30 - 21 = 9$ cars

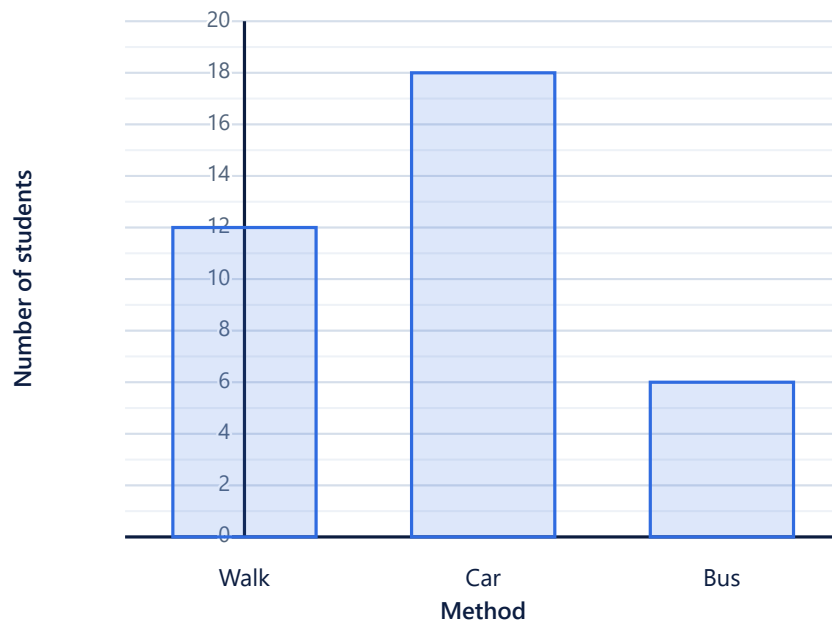
9

3

A bar chart shows how the students in class 8R travel to school. The table gives the height of each bar.

Method	Number of students
Walk	12
Car	18
Bus	6

- Write down the number of students who travel by bus.
- Write down the ratio of the number of students who walk to the number who travel by car. Give your ratio in its simplest form.



(3 marks)

a) The bus bar has height 6

b) Walk

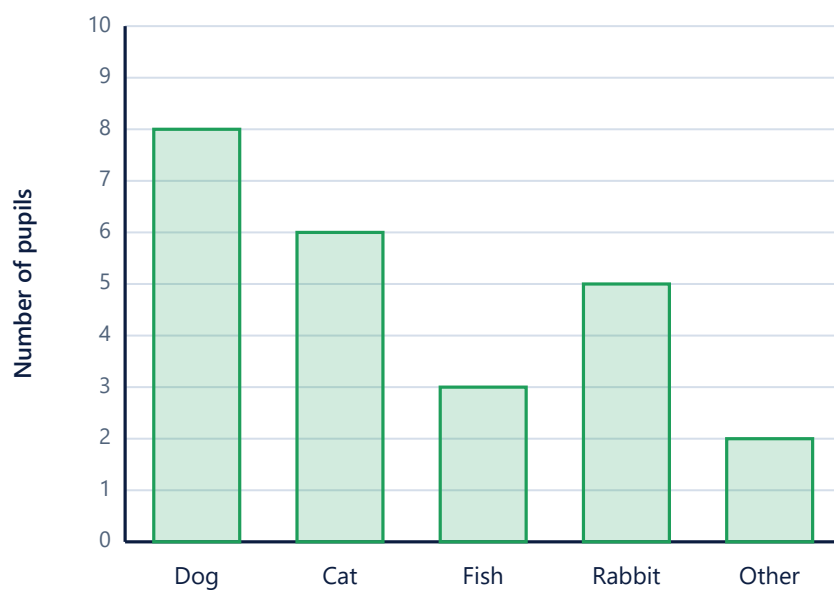
Car = 12 : 18. Divide both sides by 6 to get 2 : 3

4

The table shows the pets owned by some pupils.

Pet	Dog	Cat	Fish	Rabbit	Other
Number of pupils	8	6	3	5	2

On the grid, draw a bar chart to show this information.



(3 marks)

same width bars, equal gaps

scale goes up evenly in 1s

Dog 8, Cat 6, Fish 3, Rabbit 5, Other 2

bar chart drawn with heights 8, 6, 3, 5, 2

5

The pictogram shows the number of books borrowed from a school library on four days.

The row for Wednesday is not finished.

- How many books were borrowed on Monday?
- 14 books were borrowed on Wednesday. Complete the pictogram for Wednesday.
- Work out the total number of books borrowed from Monday to Thursday.
- How many more books were borrowed on Thursday than on Tuesday?

Monday 

Tuesday 

Wednesday 

Thursday 

Key:  = 4 books

(4 marks)

a) each circle = 4 books

$$3 \times 4 = 12$$

12 books

b)

$$14 \div 4 = 3.5$$

3 and a half circles

c) Tuesday and Thursday

$$2.5 \times 4 = 10$$

$$4 \times 4 = 16$$

$$12 + 10 + 14 + 16 = 52$$

52 books

d)

$$16 - 10 = 6$$

6 more

- 6 150 students travel to school by bus, by car or by walking.

The two-way table shows some information.

	Bus	Car	Walk	Total
Year 7	24		30	80
Year 8		18		
Total	55			150

Complete the two-way table.

(3 marks)

$$\text{Year 7 car} = 80 - 24 - 30 = 26$$

$$\text{Year 8 total} = 150 - 80 = 70$$

$$\text{Year 8 bus} = 55 - 24 = 31$$

$$\text{Year 8 walk} = 70 - 31 - 18 = 21$$

$$\text{Car total} = 26 + 18 = 44, \text{ Walk total} = 30 + 21 = 51$$

Check

$$55 + 44 + 51 = 150$$

- 7 The two-way table shows the after-school club chosen by each pupil in Year 7.

	Art	Drama	Sport	Total
Boys	12	7	18	37
Girls	15	13	10	38
Total	27	20	28	75

- How many more girls than boys chose Art?
- How many pupils did not choose Sport?
- What fraction of the boys chose Sport?

(3 marks)

a)

$$15 - 12 = 3$$

3

b) everyone minus Sport

$$75 - 28 = 47$$

47

c) 18 out of 37 boys

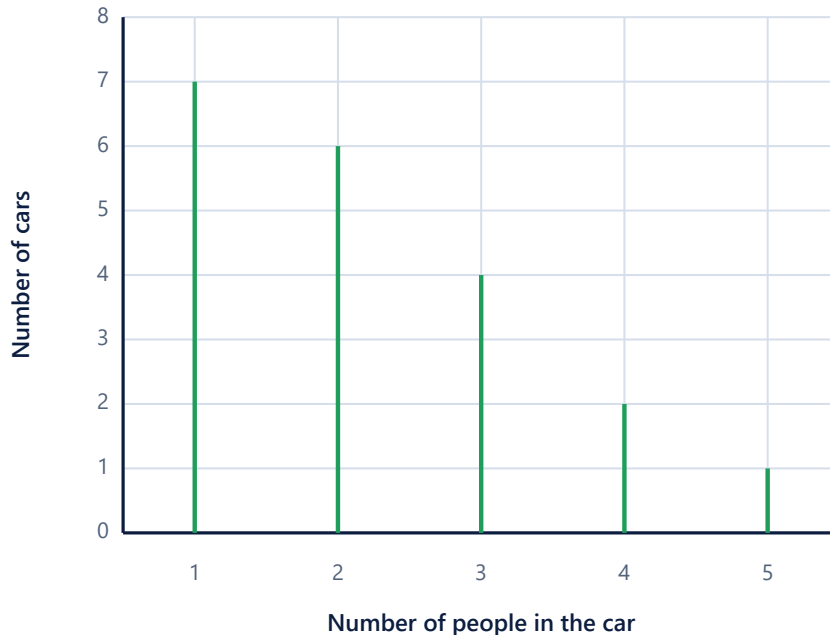
$\frac{18}{37}$

8

Ruby counted the number of people in each of 20 cars passing her school.

Number of people	1	2	3	4	5
Number of cars	7	6	4	2	1

- On the grid, draw a vertical line chart for this information.
- How many cars had more than 2 people in them?
- Work out the total number of people in the 20 cars.



(4 marks)

a) one thin line for each number of people

lines of height 7, 6, 4, 2, 1

b) 3, 4 or 5 people

$$4 + 2 + 1 = 7$$

7 cars

c) people $\times$ cars for each column

$$1 \times 7 = 7$$

$$2 \times 6 = 12$$

$$3 \times 4 = 12$$

$$4 \times 2 = 8$$

$$5 \times 1 = 5$$

$$7 + 12 + 12 + 8 + 5 = 44$$

44 people

9

Here are the scores of 16 pupils in a test marked out of 40.

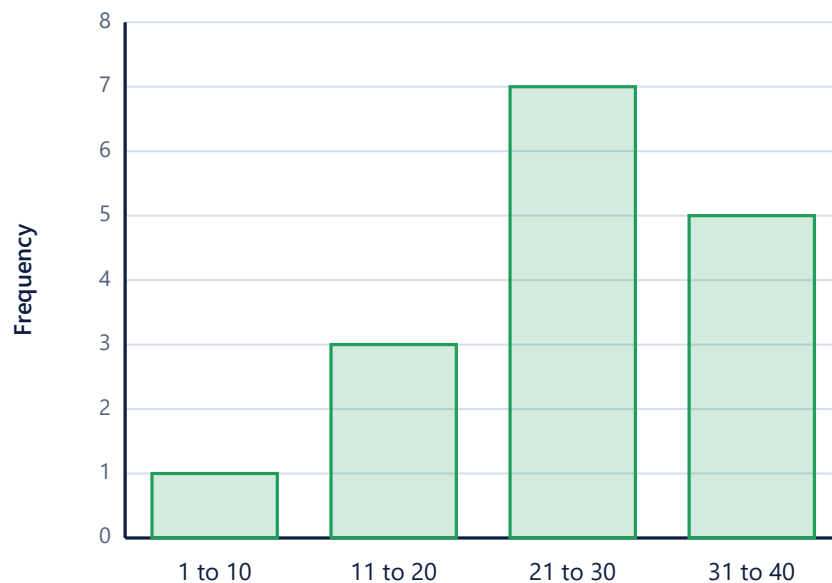
23 35 18 29 31 12 27 38 25 9 33 21 28 16 36 24

a. Copy and complete the grouped frequency table.

Score	Tally	Frequency
1 to 10		
11 to 20		
21 to 30		
31 to 40		

b. Write down the modal class.

c. On the grid, draw a bar chart for your grouped frequency table.



(4 marks)

a) sort each score into a class

1 to 10: 9 count 1

11 to 20: 18, 12, 16 count 3

21 to 30: 23, 29, 27, 25, 21, 28, 24 count 7

31 to 40: 35, 31, 38, 33, 36 count 5

$$1 + 3 + 7 + 5 = 16$$

b) highest frequency

21 to 30

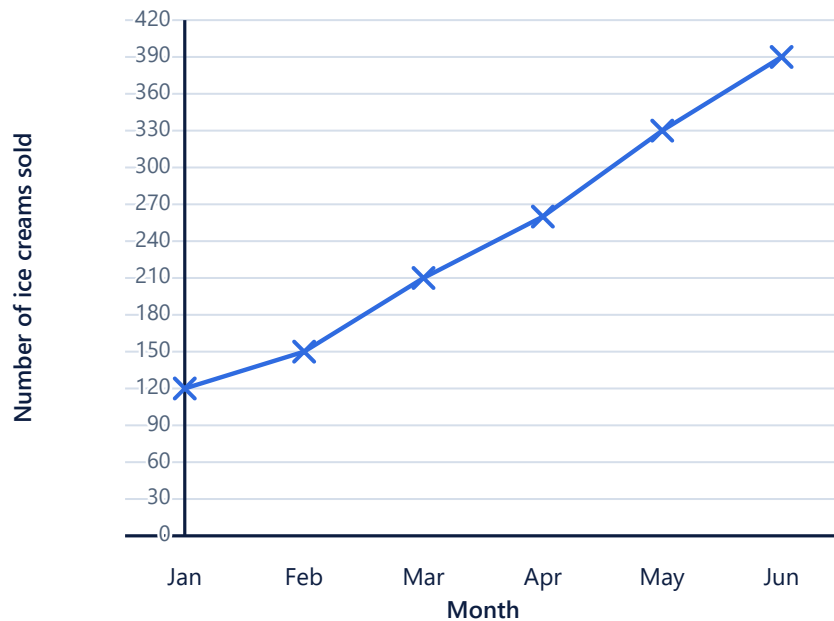
c)

bars of height 1, 3, 7, 5

10

The time series graph shows the number of ice creams a kiosk sold each month from January to June.

- Write down the number of ice creams sold in April.
- Between which two consecutive months was the biggest increase in sales?



(2 marks)

a) The point for April is at 260 ice creams

b) The increases are: Jan to Feb 30, Feb to Mar 60, Mar to Apr 50, Apr to May 70, May to Jun 60

The biggest increase, 70, is between April and May - the steepest line segment on the graph

11

Part of a bus timetable is shown.

	Bus A	Bus B	Bus C
Bus station	07:40	08:05	08:35
Park Road	07:52	08:17	08:47
Library	08:03	08:28	08:58
School	08:15	08:40	09:10

- a. How long does Bus B take to go from the bus station to school?
 b. Maya gets on at Park Road. She must be at school by 08:30. Which is the latest bus she can catch?
 c. Ollie arrives at the Library stop at 08:10. How long does he have to wait for the next bus?

(3 marks)

a) Bus B column

08:05 to 08:40

$$40 - 5 = 35$$

35 minutes

b) arrival times at school

Bus A 08:15 Bus B 08:40 (too late)

Bus A at 07:52

c) next bus at the Library after 08:10

Bus B at 08:28

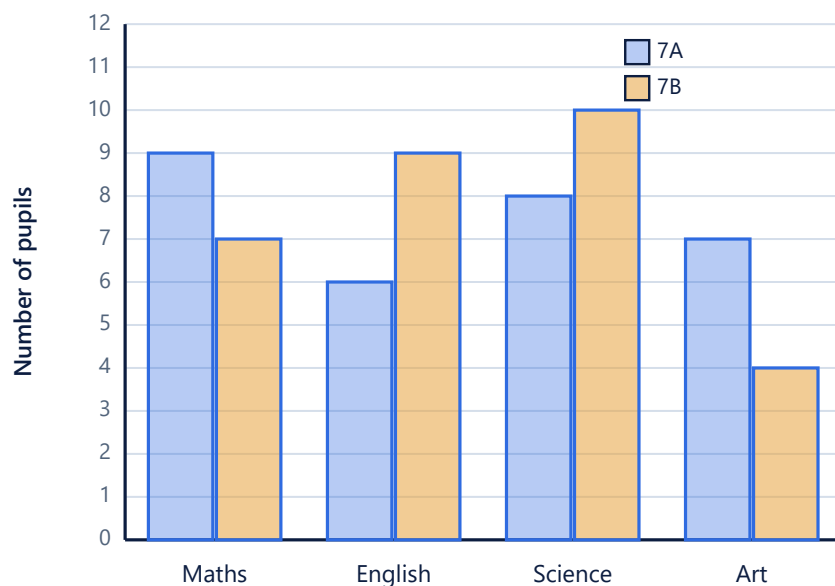
$$28 - 10 = 18$$

18 minutes

12

The dual bar chart shows the favourite subject of each pupil in classes 7A and 7B.

- How many pupils are in class 7A?
- In which subject did 7B have exactly 2 more pupils than 7A?
- Which subject was the most popular when the two classes are added together? You must show your working.



(3 marks)

a) add the 7A bars

$$9 + 6 + 8 + 7 = 30$$

30 pupils

b) 7B minus 7A for each subject

$$\text{Maths } 7 - 9 = -2$$

$$\text{English } 9 - 6 = 3$$

$$\text{Science } 10 - 8 = 2$$

$$\text{Art } 4 - 7 = -3$$

Science

c) add the two classes

Maths 16, English 15, Science 18, Art 11

Science