Frequency Graph - Worksheet

Skill

Group A - Bar charts

Draw a bar chart for these sets of data:

1)

Fruit	Frequency
Apple	3
Banana	4
Cherry	5

2)

Fruit	Frequency
Apple	7
Banana	3
Cherry	8

3)

Fruit	Frequency
Apple	4
Banana	7
Cherry	9

4)

Fruit	Frequency
Apple	3
Banana	4
Cherry	5
Damson	3

5)

Fruit	Frequency
Apple	7
Banana	3
Cherry	8
Damson	12

6)

Fruit	Frequency
Apple	4
Banana	7
Cherry	9
Damson	4

Group B - Pie charts

Draw a pie chart for these sets of data:

1)

Fruit	Frequency
Apple	3
Banana	4
Cherry	5

2)

Fruit	Frequency
Apple	7
Banana	3
Cherry	8

3)

Fruit	Frequency
Apple	4
Banana	7
Cherry	9

4)

Fruit	Frequency
Apple	3
Banana	4
Cherry	5
Damson	3

5)

Fruit	Frequency
Apple	7
Banana	3
Cherry	8
Damson	12

6)

Fruit	Frequency
Apple	4
Banana	7
Cherry	9
Damson	4

Frequency Graph - Worksheet

Group C - Vertical line chart

Draw a vertical line chart for these sets of data:

1)

Number	Frequency
1	3
2	4
3	5

2)

Number	Frequency
1	7
2	3
3	8

3)

Number	Frequency
1	4
2	7
3	9

4)

Number	Frequency
1	3
2	4
3	5
4	3

5)

Number	Frequency
1	7
2	3
3	8
4	12

6)

Number	Frequency
1	4
2	7
3	9
4	4

Group D - Frequency diagram

Draw a frequency diagram for these sets of grouped data:

1)

Values, x	Frequency
$0 \leq x < 10$	3
$10 \leq x < 20$	5
$20 \leq x < 30$	4

2)

Values, x	Frequency
$0 \leq x < 20$	4
$20 \leq x < 40$	8
$40 \leq x < 60$	7

3)

Values, x	Frequency
$0 < x \leq 30$	1
$30 < x \leq 60$	6
$60 < x \leq 90$	4

4)

Values, x	Frequency
$0 \leq x < 10$	3
$10 \leq x < 20$	4
$20 \leq x < 30$	5
$30 \leq x < 40$	2

5)

Values, x	Frequency
$0 \leq x < 20$	4
$10 \leq x < 40$	8
$40 \leq x < 60$	7
$60 \leq x < 80$	3

6)

Values, x	Frequency
$0 < x \leq 30$	1
$30 < x \leq 60$	6
$60 < x \leq 90$	4
$90 < x \leq 120$	3

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Frequency Graph - Worksheet

Group E - Frequency polygon

Draw a frequency polygon for these sets of grouped data:

1)

Values, x	Frequency
$0 \le x < 10$	3
$10 \le x < 20$	5
$20 \le x < 30$	4

2)

Values, x	Frequency
$0 \le x < 20$	4
$20 \le x < 40$	8
$40 \le x < 60$	7

3)

Values, x	Frequency
$0 < x \le 30$	1
$30 < x \le 60$	6
$60 < x \le 90$	4

4)

Values, x	Frequency
$0 \le x < 10$	3
$10 \le x < 20$	5
$20 \le x < 30$	4
$30 \le x < 40$	2

5)

Values, x	Frequency
$0 \le x < 20$	4
$20 \le x < 40$	8
$40 \le x < 60$	7
$60 \le x < 80$	3

6)

Values, x	Frequency
$0 < x \le 30$	1
$30 < x \le 60$	6
$60 < x \le 90$	4
$90 < x \le 120$	3

Frequency Graph - Worksheet

Applied

1)   Kai did a survey about people's favourite sport. Here is a bar chart showing his results.
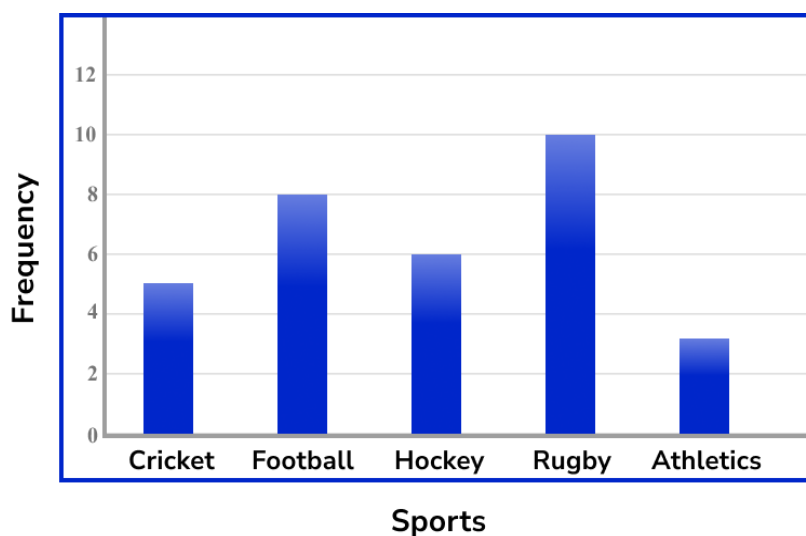
(a) Which sport is the most popular sport?

(b) How many people were surveyed?

2)   40 children took part in a club on Monday. Here is a pie chart of the results.
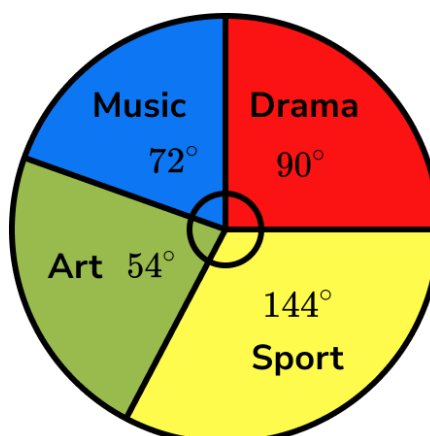
(a) How many children went to the Drama club?

(b) How many children went to the Sport club?

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Frequency Graph - Worksheet

3) 80 students did a Science test.

Scores, x	Frequency
$0 \le x < 20$	10
$20 \le x < 40$	18
$40 \le x < 60$	26
$60 \le x < 80$	14
$80 \le x < 100$	12

(a) Draw a frequency diagram to show the results.

(b) The pass mark was 60. How many students passed the test?

Frequency Graph - Exam Questions

1) Libby works in a cafe.

One day she collects some data on the drinks chosen by the customers.

The table shows the results.

Drinks	Frequency
Coffee	11
Tea	14
Milkshake	3
Soda	9
Juice	4

(a) Complete the bar chart to show Libby's results.

(2)
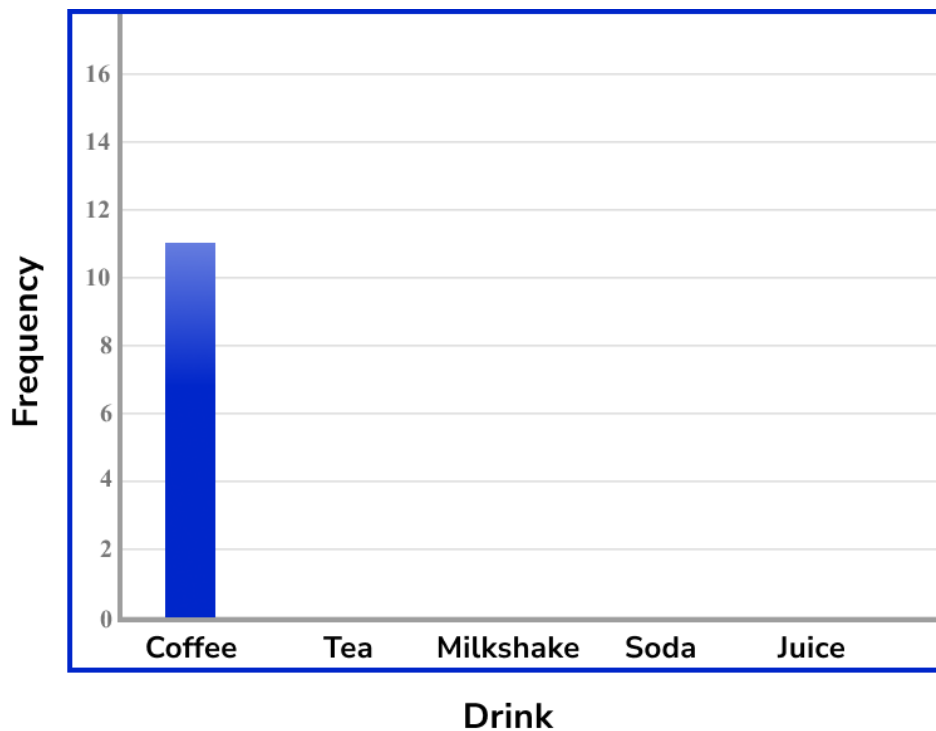
(b) How many **more** Teas than Sodas were chosen?

....
(1)
(3 marks)

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Frequency Graph - Exam Questions

2)   In a survey on breakfast cereal, 180 people were asked to state which brand they preferred.

The pie chart showing the results has started to be drawn.
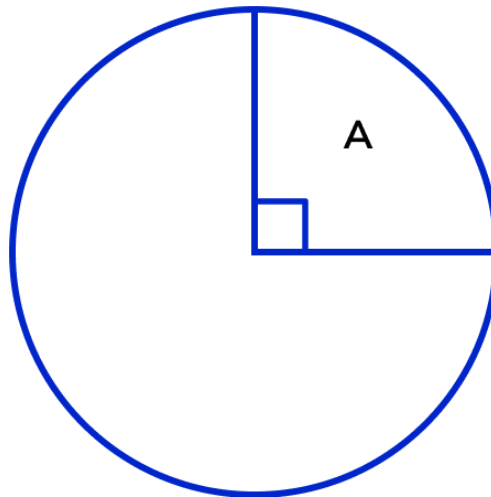
(a)   How many people preferred Brand A?

....
(2)

(b)   Here is a table showing the **other** brands.

Complete the table.

Brand	Frequency	Angle
B	18	36°
C	40	
D		110°
E		

(3)

(c)   Complete the pie chart.

(2)

Frequency Graph - Exam Questions

3) The frequency table shows some information about the speeds of 80 vehicles.

Speed, x (kmph)	Frequency
0 < x ≤ 20	2
20 < x ≤ 40	24
40 < x ≤ 60	26
60 < x ≤ 80	30
80 < x ≤ 100	13
100 < x ≤ 120	5

On the grid, draw a frequency polygon for the information in the table.

Speeds, kmph

(2 marks)

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Frequency Graph - Answers

	Question	Answer
	Skill Questions	
Group A	Draw a bar chart for these sets of data: **1)** | Fruit	Frequency
---	---
Apple	3
Banana	4
Cherry	5		**1)**
	2) | Fruit	Frequency
---	---
Apple	7
Banana	3
Cherry	8		**2)**

Frequency Graph - Answers

Group A contd	3)

3)

Fruit	Frequency
Apple	4
Banana	7
Cherry	9

3)

4)

Fruit	Frequency
Apple	3
Banana	4
Cherry	5
Damson	3

4)

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10
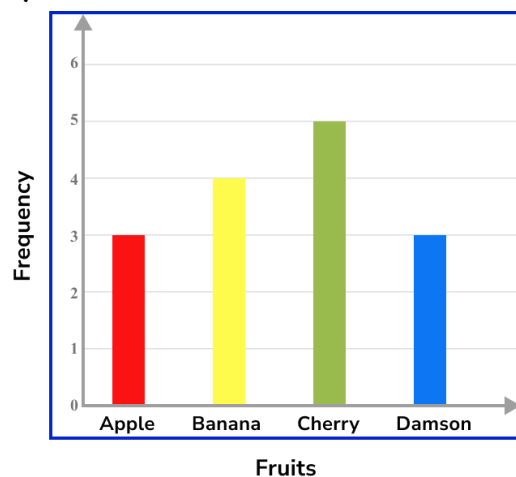
Frequency Graph - Answers

Group A contd	5)

5)

Fruit	Frequency
Apple	7
Banana	3
Cherry	8
Damson	12

6)
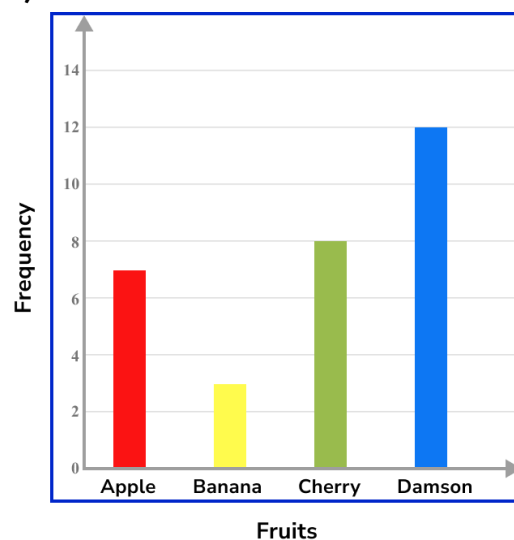
Fruit	Frequency
Apple	4
Banana	7
Cherry	9
Damson	4

Frequency Graph - Answers

Group B	Draw a pie chart for these sets of data:

1)

Fruit	Frequency
Apple	3
Banana	4
Cherry	5

1)

2)
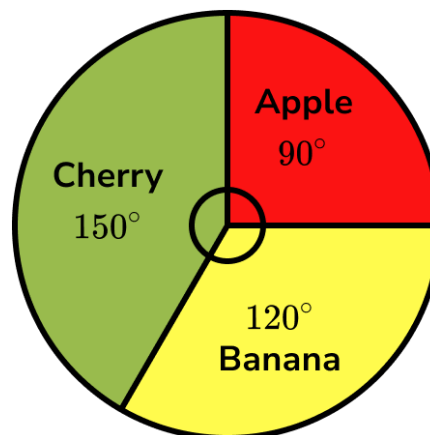
Fruit	Frequency
Apple	7
Banana	3
Cherry	8

2)

3)

Fruit	Frequency
Apple	4
Banana	7
Cherry	9

3)

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12
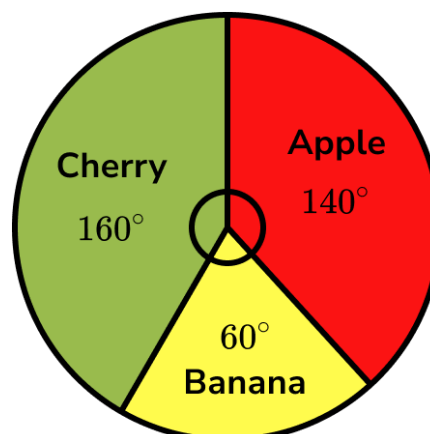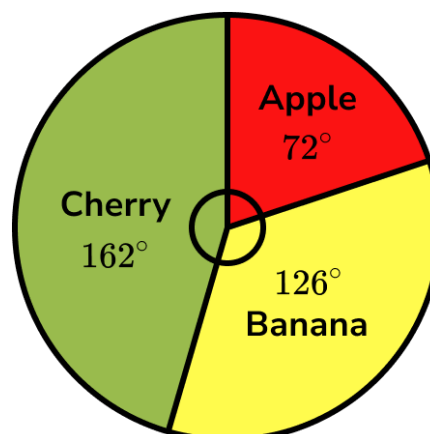
Frequency Graph - Answers

Group B contd		

4)

Fruit	Frequency
Apple	3
Banana	4
Cherry	5
Damson	3

4)

5)

Fruit	Frequency
Apple	7
Banana	3
Cherry	8
Damson	12

5)

6)

Fruit	Frequency
Apple	4
Banana	7
Cherry	9
Damson	4

6)

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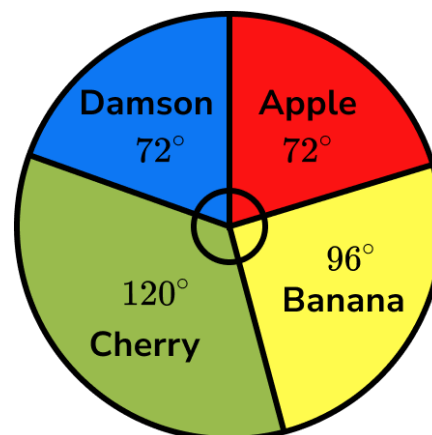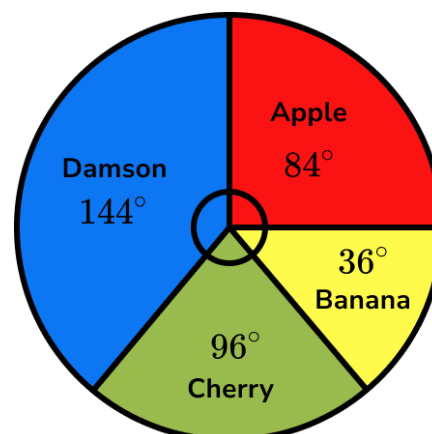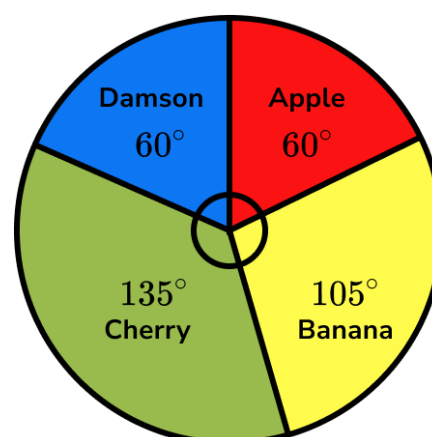
Frequency Graph - Answers

Group C	Draw a vertical line chart for these sets of data:

1)

Number	Frequency
1	3
2	4
3	5

1)

2)

Number	Frequency
1	7
2	3
3	8

2)

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14
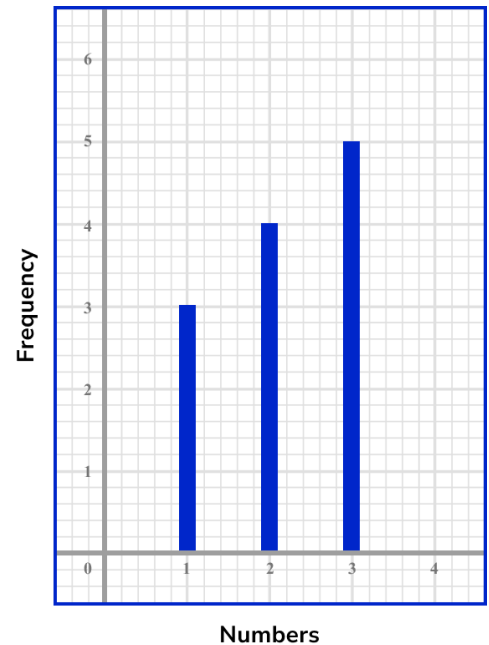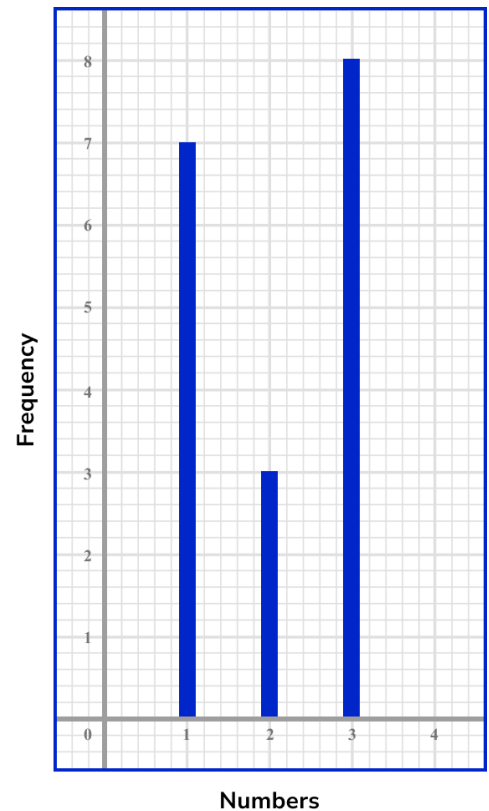
Frequency Graph - Answers

Group C contd	3)	

3)

Number	Frequency
1	4
2	7
3	9

3)

4)
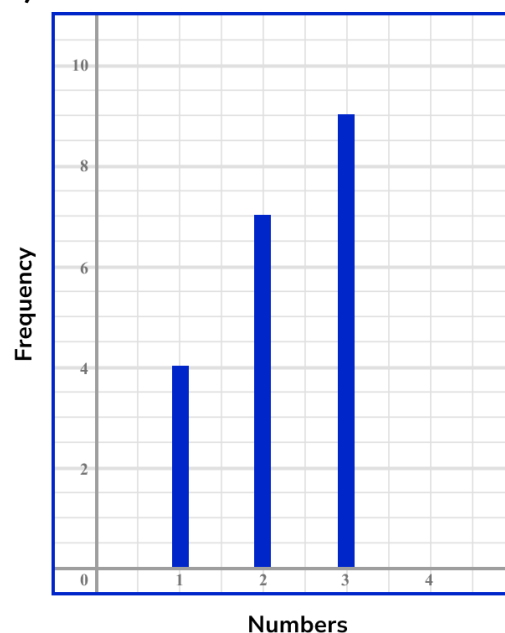
Number	Frequency
1	3
2	4
3	5
4	3

4)
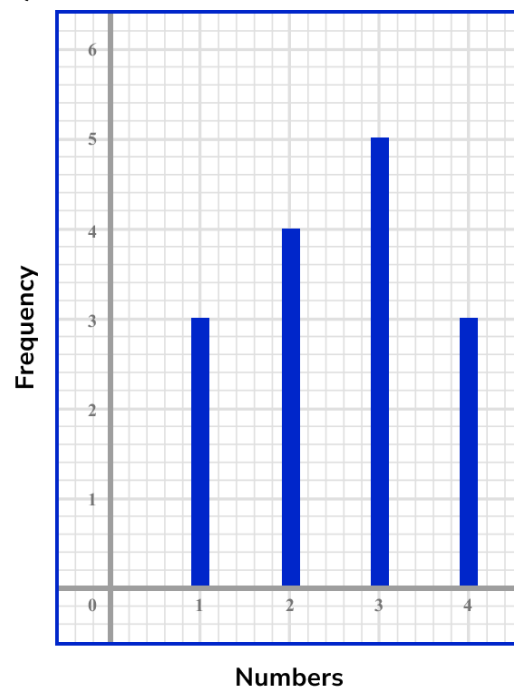
Frequency Graph - Answers

Group C contd	5)		5)

5)

Number	Frequency
1	7
2	3
3	8
4	12

5)

6)

Number	Frequency
1	4
2	7
3	9
4	4

6)

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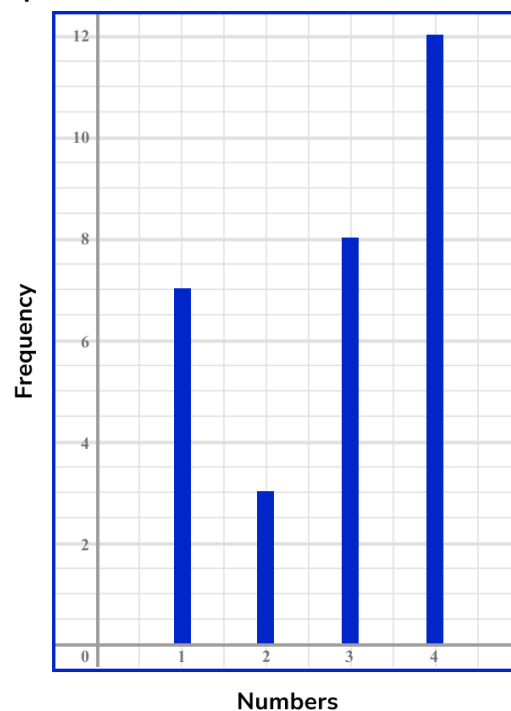
16
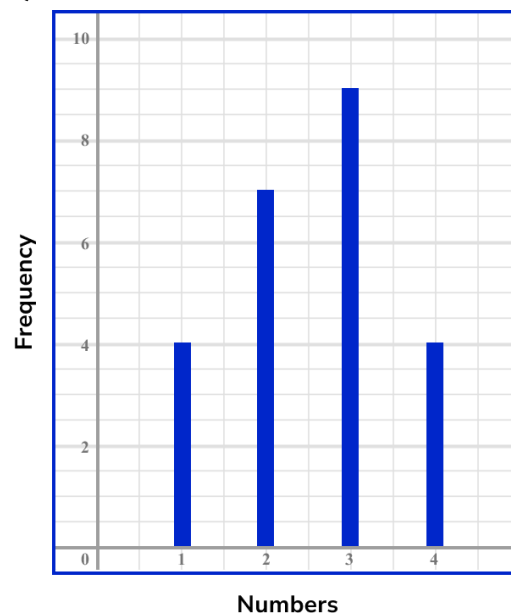
Frequency Graph - Answers

Group D	Draw a frequency diagram for these sets of grouped data:		

1)

Values, x	Frequency
$0 \leq x < 10$	3
$10 \leq x < 20$	5
$20 \leq x < 30$	4

1)

2)
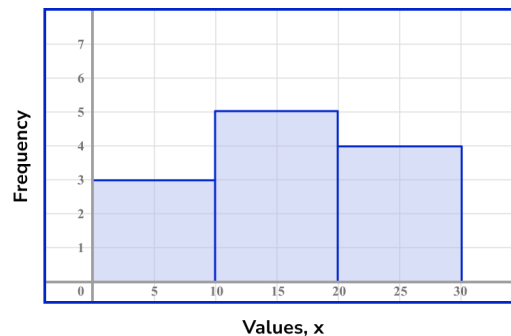
Values, x	Frequency
$0 \leq x < 20$	4
$20 \leq x < 40$	8
$40 \leq x < 60$	7

2)

3)
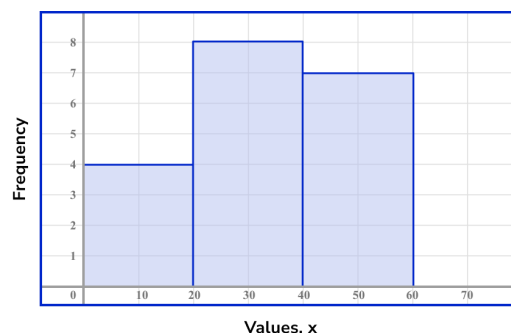
Values, x	Frequency
$0 < x \leq 30$	1
$30 < x \leq 60$	6
$60 < x \leq 90$	4

3)

4)
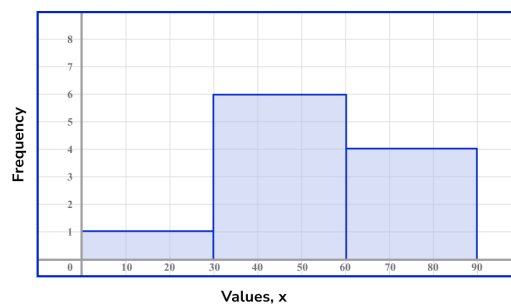
Values, x	Frequency
$0 \leq x < 10$	3
$10 \leq x < 20$	4
$20 \leq x < 30$	5
$30 \leq x < 40$	2

4)
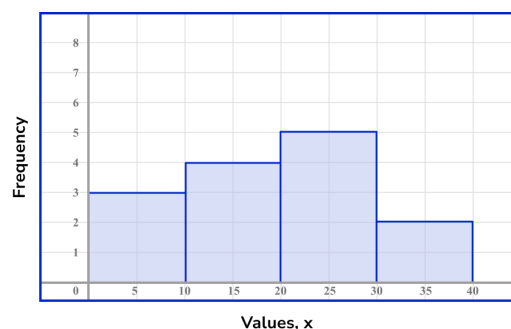
Frequency Graph - Answers

Group D contd	5)		5)

5)

Values, x	Frequency
$0 \leq x < 20$	4
$10 \leq x < 40$	8
$40 \leq x < 60$	7
$60 \leq x < 80$	3

5)

6)
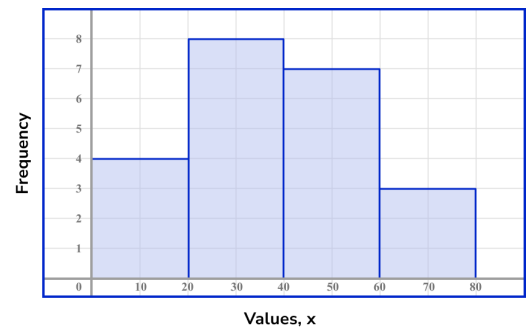
Values, x	Frequency
$0 < x \leq 30$	1
$30 < x \leq 60$	6
$60 < x \leq 90$	4
$90 < x \leq 120$	3

6)
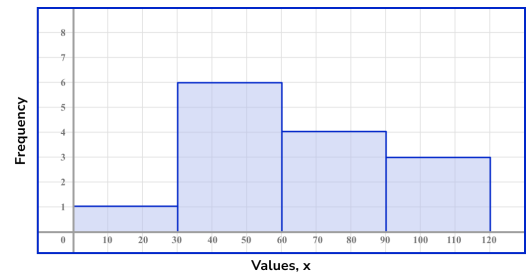
Group E

Draw a frequency polygon for these sets of grouped data:

1)

Values, x	Frequency
$0 \leq x < 10$	3
$10 \leq x < 20$	5
$20 \leq x < 30$	4

1)

Frequency Graph - Answers

Group E contd	2)		2)

2)

Values, x	Frequency
$0 \leq x < 20$	4
$20 \leq x < 40$	8
$40 \leq x < 60$	7

3)

Values, x	Frequency
$0 < x \leq 30$	1
$30 < x \leq 60$	6
$60 < x \leq 90$	4

4)

Values, x	Frequency
$0 \leq x < 10$	3
$10 \leq x < 20$	5
$20 \leq x < 30$	4
$30 \leq x < 40$	2

Frequency Graph - Answers

Group E contd	5)		
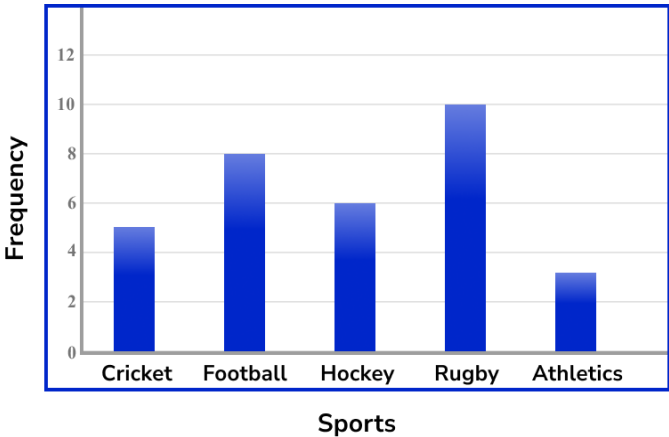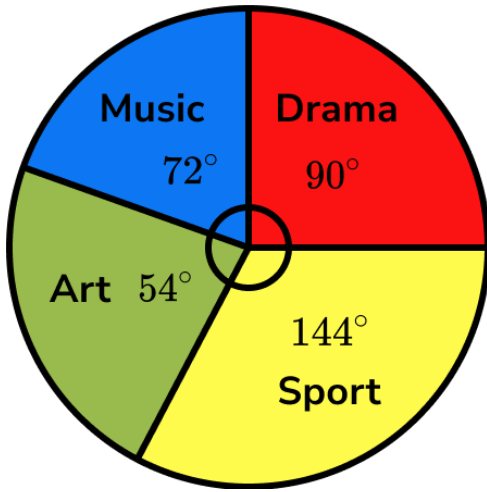
5)

Values, x	Frequency
$0 \le x < 20$	4
$20 \le x < 40$	8
$40 \le x < 60$	7
$60 \le x < 80$	3

5)

6)

Values, x	Frequency
$0 < x \le 30$	1
$30 < x \le 60$	6
$60 < x \le 90$	4
$90 < x \le 120$	3

6)

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Frequency Graph - Answers

	Question	Answer
	Applied Questions	
1)	Kai did a survey about people's favourite sport. Here is a bar chart showing his results. 	
	a) Which sport is the most popular sport?	**a)** Rugby
	b) How many people were surveyed?	**b)** 32 people
2)	40 children took part in a club on Monday. Here is a pie chart of the results. 	
	a) How many children went to the Drama club?	**a)** 1 person = $9^°$ 10 people = $90^°$ 10 children
	b) How many children went to the Sport club?	**b)** 16 children

Frequency Graph - Answers

3) 80 students did a Science test.

Scores, x	Frequency
$0 \leq x < 20$	10
$20 \leq x < 40$	18
$40 \leq x < 60$	26
$60 \leq x < 80$	14
$80 \leq x < 100$	12

a) Draw a frequency diagram to show the results.

a)
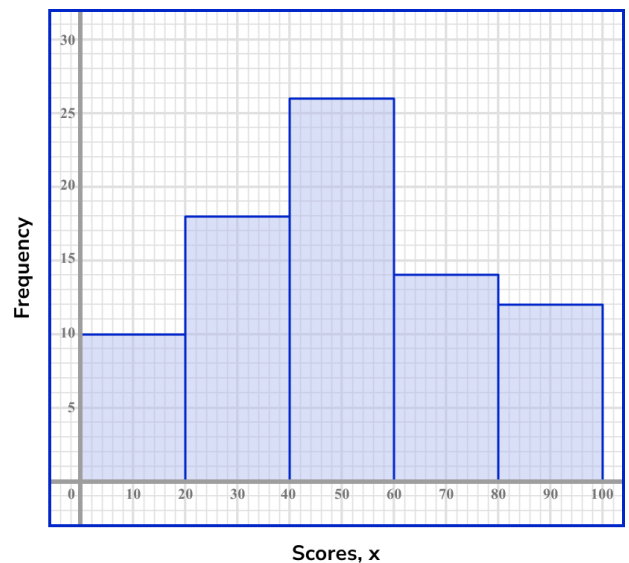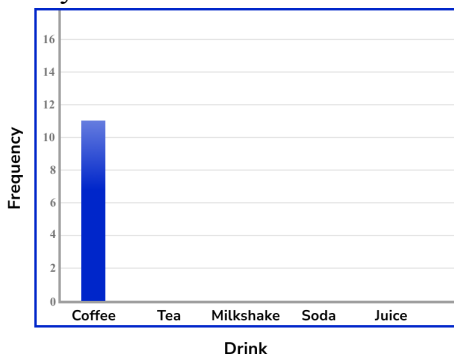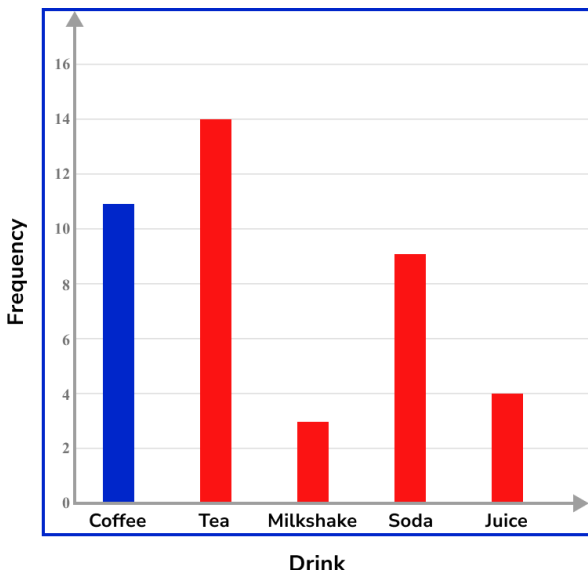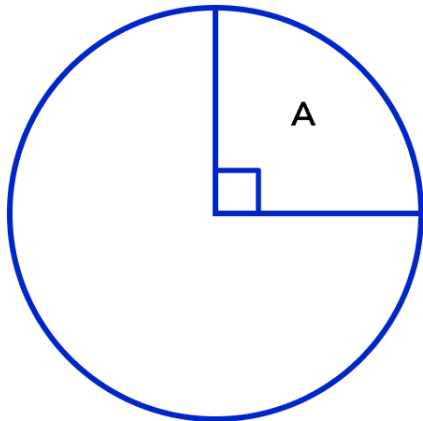
b) The pass mark was 60. How many students passed the test?

b) 26 students passed the test.

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Frequency Graph - Mark Scheme

	Question	Answer	
	Exam Questions		
1)	Libby works in a cafe. One day she collects some data on the drinks chosen by the customers. The table shows the results. 		

Drinks	Frequency
Coffee	11
Tea	14
Milkshake	3
Soda	9
Juice	4

(a) Complete the bar chart to show Libby's results.

a)

Minimum 2 correct bars **(1)**
All 4 correct bars **(1)**

(b) How many **more** Teas than Sodas were chosen?

(b) $14 - 9 = 5$ **(1)**

Frequency Graph - Mark Scheme

2)	In a survey on breakfast cereal, 180 people were asked to state which brand they preferred. The pie chart showing the results has started to be drawn. ![Pie chart with sector labelled A, right angle shown]			
(a)	How many people preferred Brand A?	**(a)**	180 ÷ 4 **oe** 45 people	**(1)** **(1)**

(b) Here is a table showing the **other** brands.

Brand	Frequency	Angle
B	18	36°
C	40	
D		110°
E		

Complete the table.

(b)

Brand	Frequency	Angle
B	18	36°
C	40	**80°**
D	**55**	110°
E	**22**	**44°**

Row C correct **(1)**
Row D correct **(1)**
Row E correct **(1)**

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(c)	Complete the pie chart.	**(c)**		

For one correct sector with label **(1)**
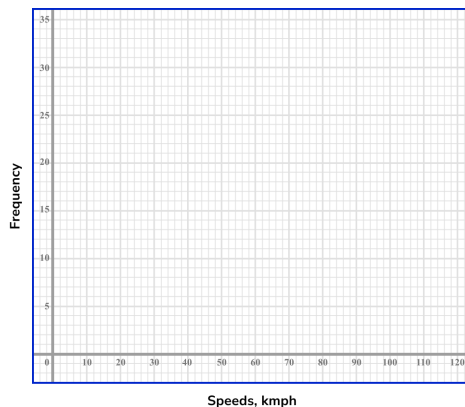For ALL correct sectors and labels **(1)**
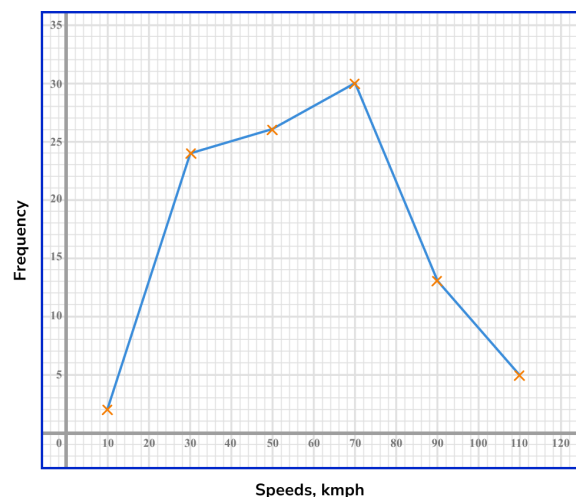
Frequency Graph - Mark Scheme

3) The frequency table shows some information about the speeds of 80 vehicles.

Speed, x (kmph)	Frequency
$0 < x \leq 20$	2
$20 < x \leq 40$	24
$40 < x \leq 60$	26
$60 < x \leq 80$	30
$80 < x \leq 100$	13
$100 < x \leq 120$	5

On the grid, draw a frequency polygon for the information in the table.

Midpoints are 10, 30, 50, 70, 90 and 110. **(1)**

(1)

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