X and Y Axis - Worksheet

Skill

Group A - Completing scales

Complete the missing values on these scales

1) 0 ☐ 20 30 ☐ 50 60

2) ☐ 5 10 15 20 ☐ 30

3) 0 ☐ 6 9 ☐ 15 18

4) 0 ☐ 1 1.5 ☐ 2.5

5) 0 ☐ 4 6 ☐ 10

6) 0 ☐ ☐ 12 ☐ 20 24

7) 0 2.5 ☐ ☐ ☐ 12.5 15

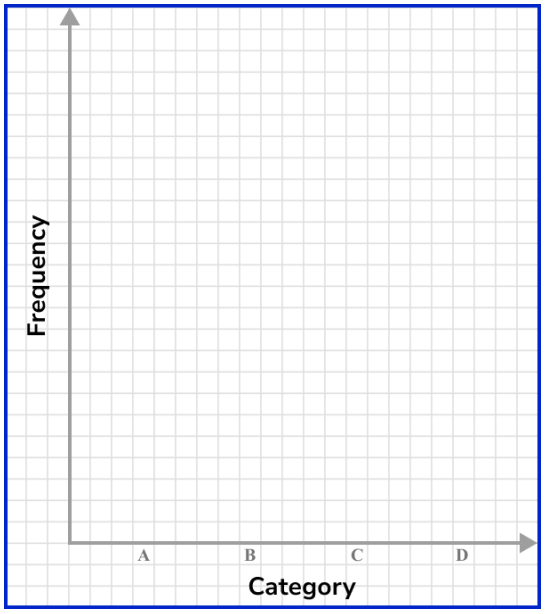
8) 0 ☐ 12 ☐ ☐ ☐ 36

Group B - Using appropriate scales

Given the tables of data, draw an appropriate vertical scale on the templates provided below.

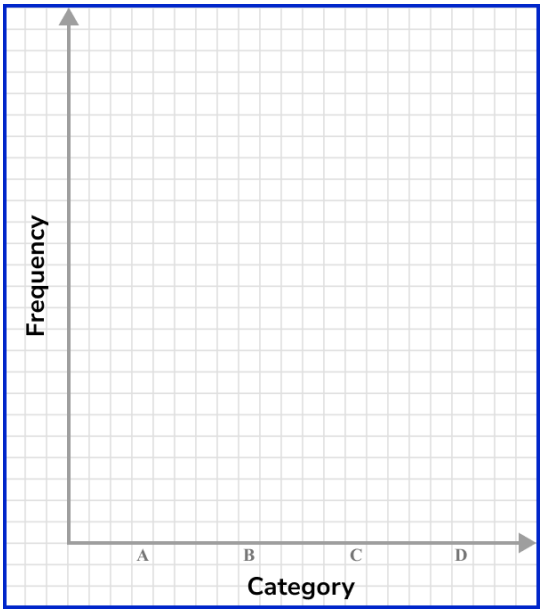
1)

Category	A	B	C	D
Frequency	3	6	1	10



2)

Category	A	B	C	D
Frequency	50	35	65	40



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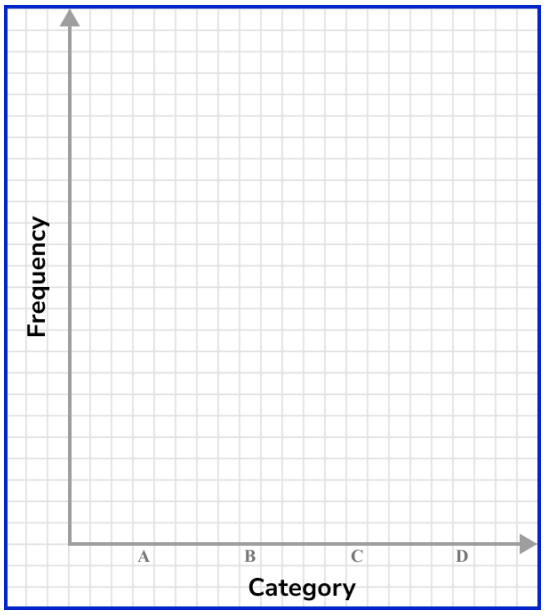
X and Y Axis - Worksheet

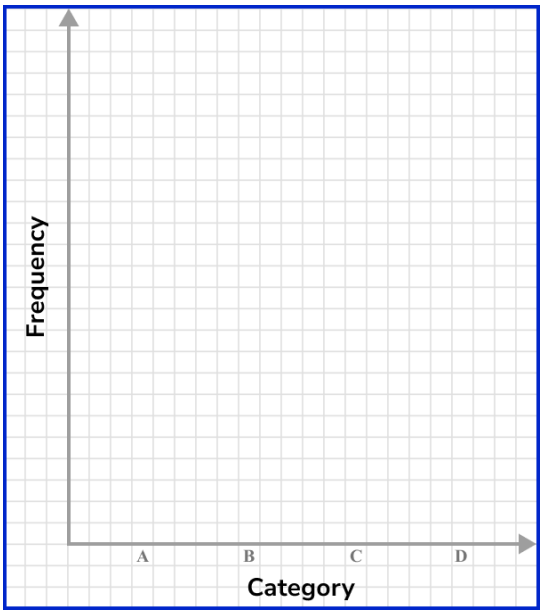
3)

Category	A	B	C	D
Frequency	20	13	4	7



4)

Category	A	B	C	D
Frequency	1	1	3	0

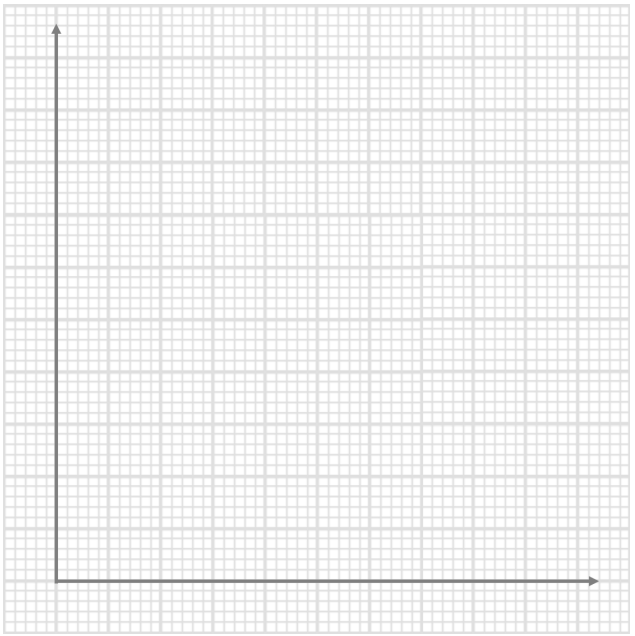


Group C - Drawing the axis for scatter graphs

Using the tables draw the axis for the scatter graphs on the graph paper below

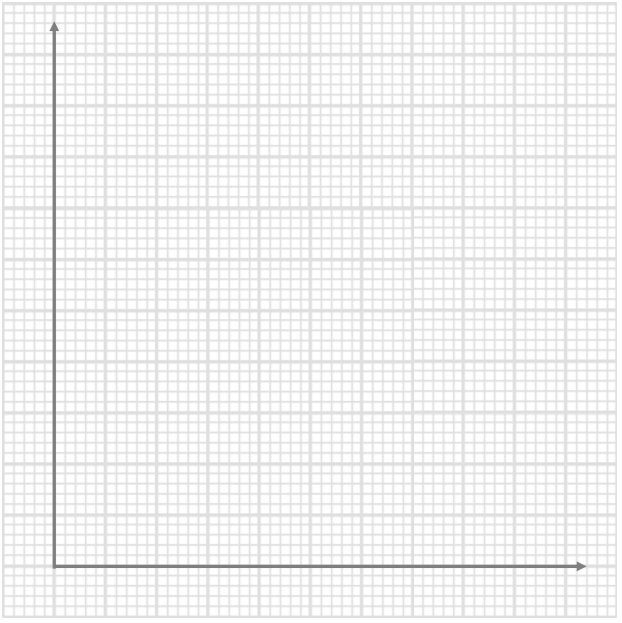
1)

Maths score	8	12	6	18	10	4	16	11
Physics Score	10	13	5	20	8	5	12	14



2)

Height (cm)	156	159	148	160	177	156	167	169
Weight (kg)	53	60	44	53	54	60	64	70



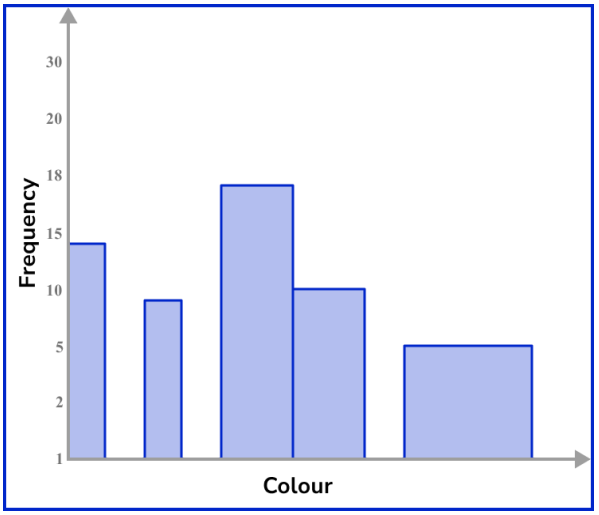
X and Y Axis - Worksheet

Applied

Spot and correct the mistakes

1) **(a)** Blythe has drawn a bar chart to show the favourite colours of people in her class. Blythe has made some mistakes. Explain what mistakes she has made.

Colour	Frequency
Blue	14
Red	9
Green	17
White	12
Pink	4



(b) Draw a correct bar chart for this information

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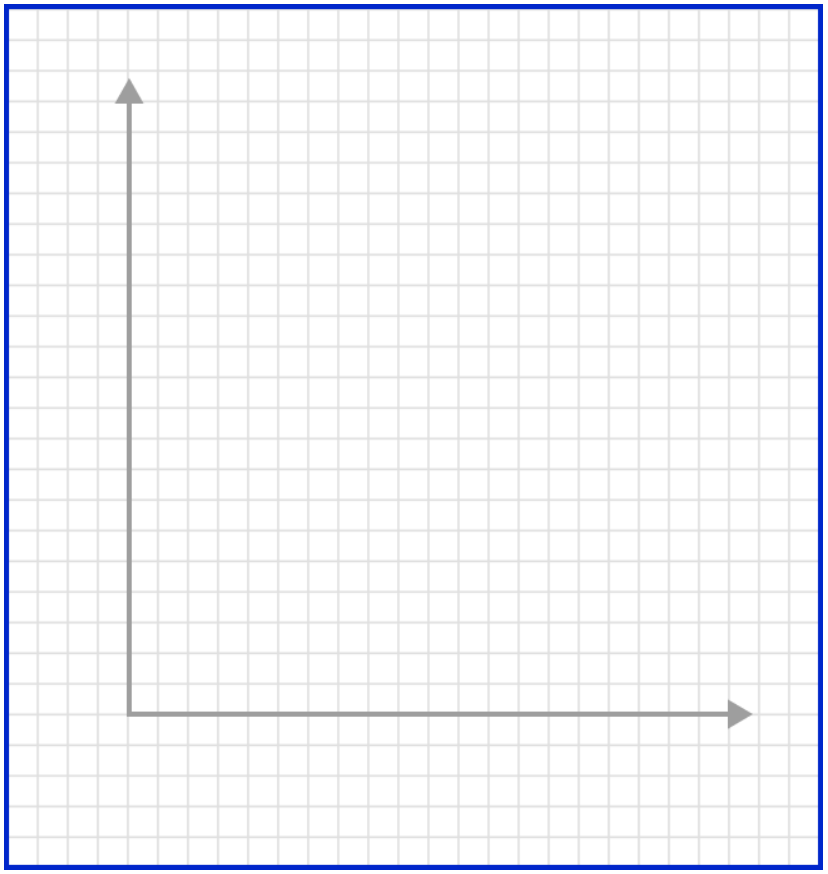
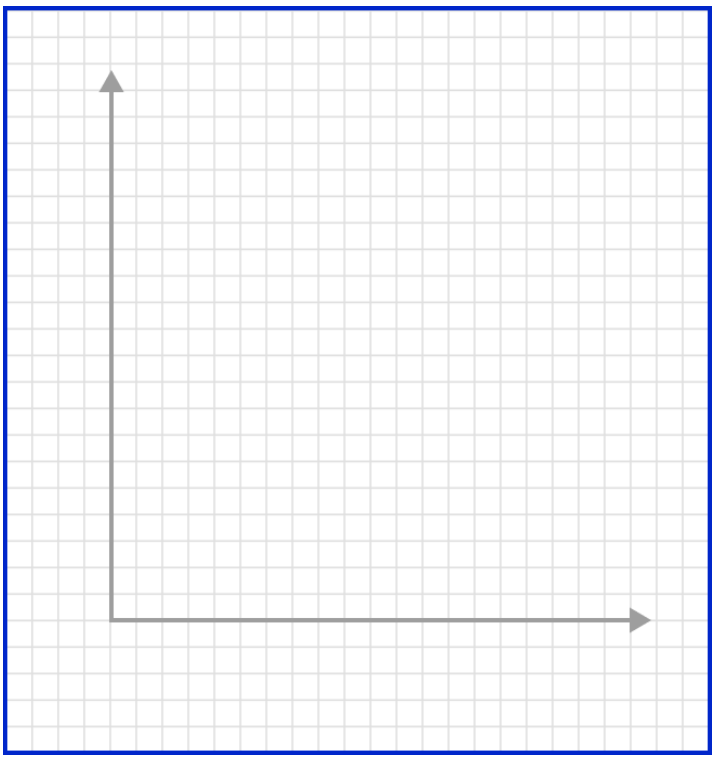


X and Y Axis - Worksheet

2) (a) Sam has started to draw a scatter graph to show hours of exercise against resting heart rate of the people in his family. Sam has made some mistakes on his axes. Explain what mistakes he has made.

Resting heart rate (bpm)	45	70	90	82	61	60	55	87	75
Hours of exercise (per week)	16	8	4	6	12	10	12	3	7

(b) Draw a correct scatter graph to show this information.



X and Y Axis - Exam Questions

1) Here are the results of a survey to find out the shoe size of year 10 pupils in class 10*A*.

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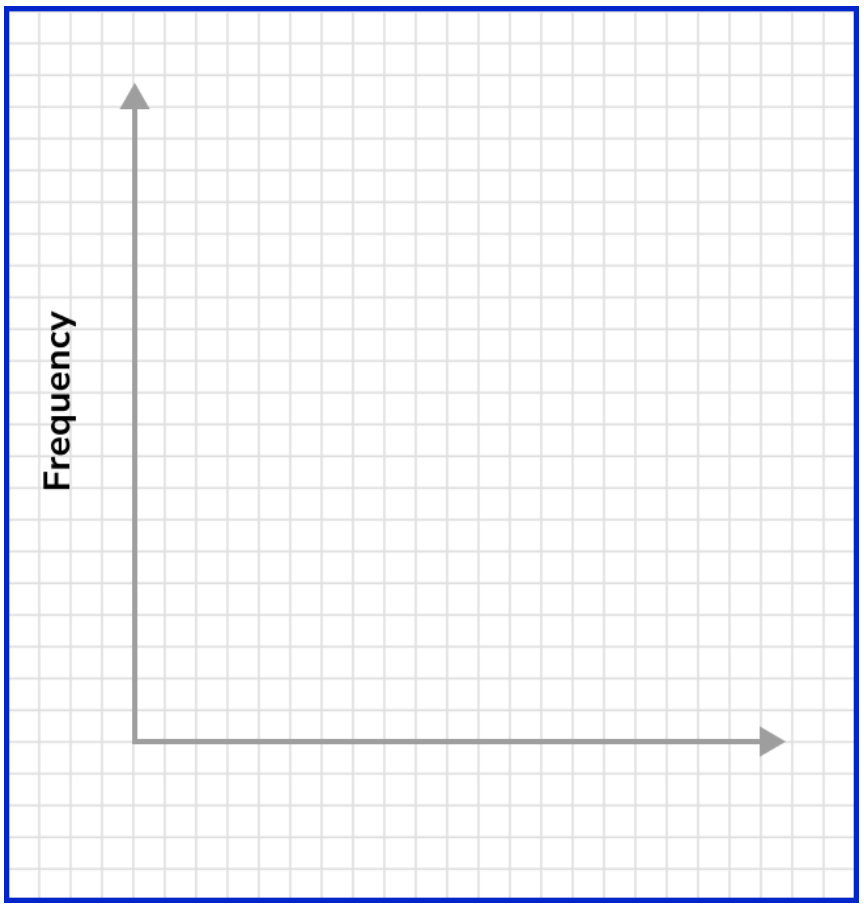
Shoe Size	Frequency
5	10
6	11
7	6
8	3

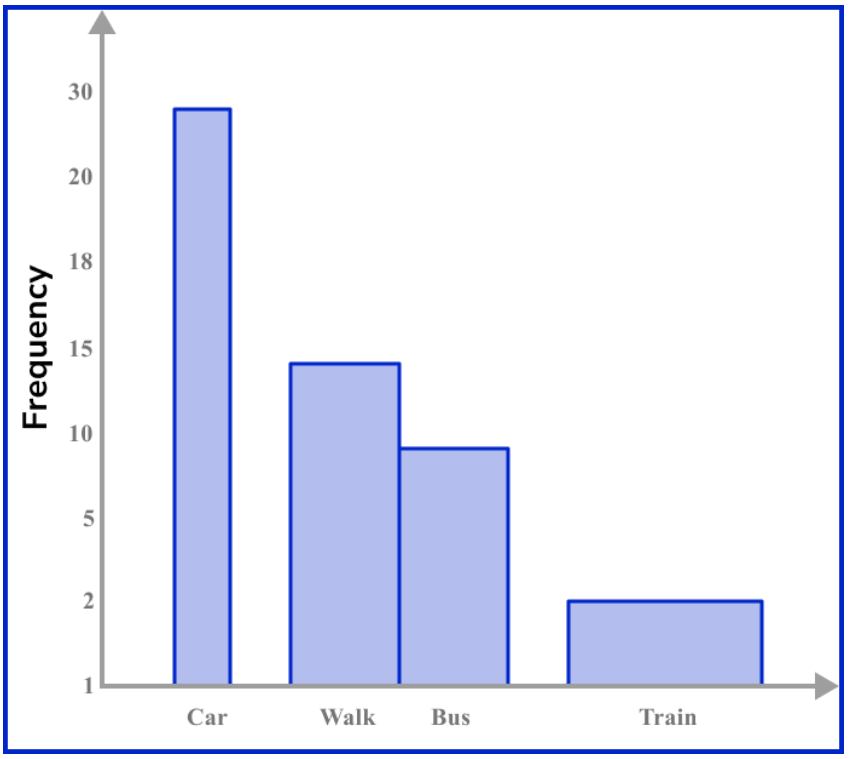
By using the appropriate scales draw the x and y axis on the graph paper below:



(3 marks)

X and Y Axis - Exam Questions

2) Identify 3 things that are incorrect about the bar chart below:



1.

2.

3.

(3 marks)

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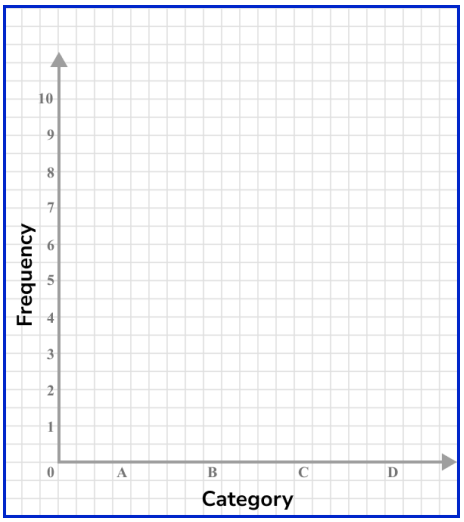
X and Y Axis - Answers

	Question	Answer
	Skill Questions	
Group A	Complete the missing values on these scales **1)** 0 ☐ 20 30 ☐ 50 60 **2)** ☐ 5 10 15 20 ☐ 30 **3)** 0 ☐ 6 9 ☐ 15 18 **4)** 0 ☐ 1 1.5 ☐ 2.5 **5)** 0 ☐ 4 6 ☐ 10 **6)** 0 ☐ ☐ 12 ☐ 20 24 **7)** 0 2.5 ☐ ☐ ☐ 12.5 15 **8)** 0 ☐ 12 ☐ ☐ ☐ 36	**1)** 10, 40 **2)** 0, 25 **3)** 3, 12 **4)** 0.5, 2.0 **5)** 2, 8 **6)** 4, 8, 16 **7)** 5, 7.5, 10 **8)** 6, 18, 24, 30
Group B	Given the tables of data, plot an appropriate scale on the templates provided below. **1)** **Category** A B C D **Frequency** 3 6 1 10	**1)** 

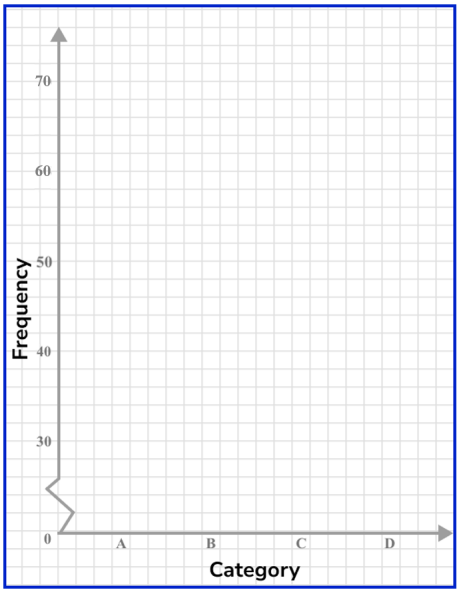
X and Y Axis - Answers

Group B contd

2)

Category	A	B	C	D
Frequency	50	35	65	40

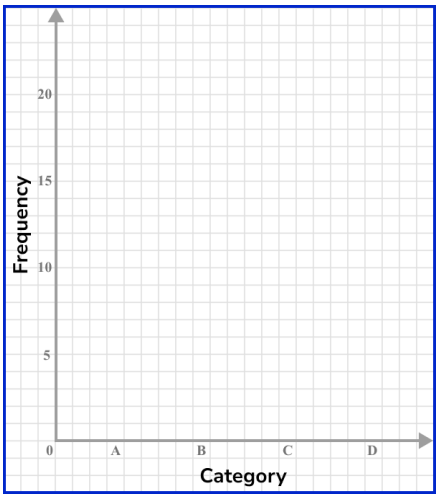
2)



3)

Category	A	B	C	D
Frequency	20	13	4	7

3)



4)

Category	A	B	C	D
Frequency	1	1	3	0

4)

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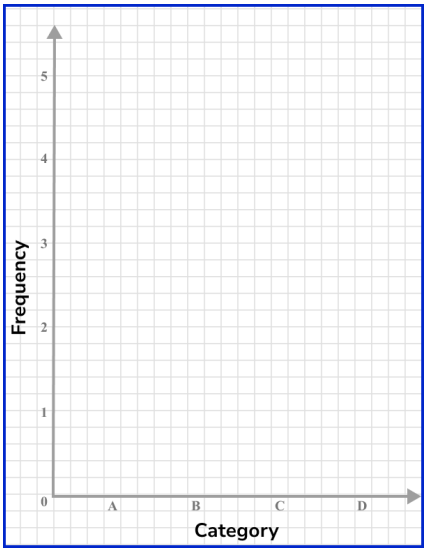


X and Y Axis - Answers

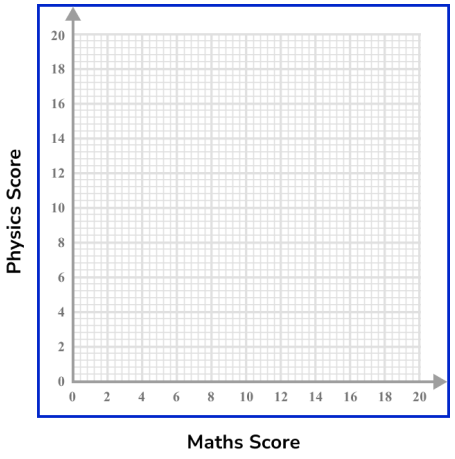
Group C

Using the tables draw the axis for the scatter graphs on the graph paper below:

1)

Maths score	8	12	6	18	10	4	16	11
Physics Score	10	13	5	20	8	5	12	14

1)



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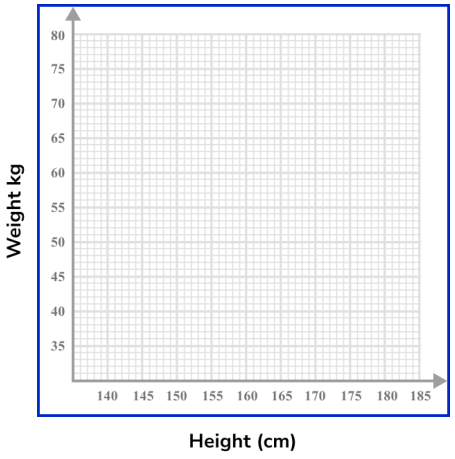
2)



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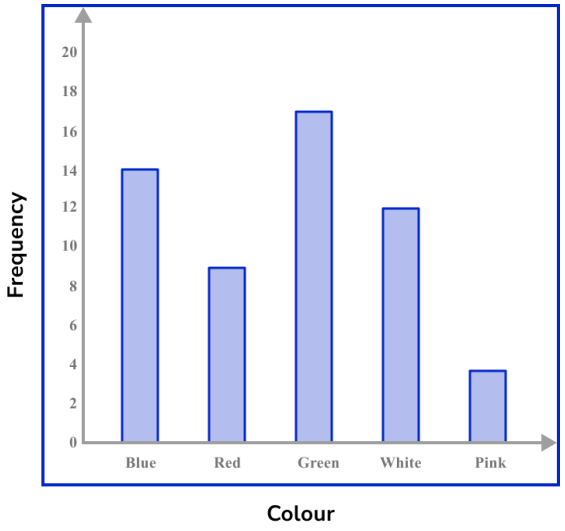
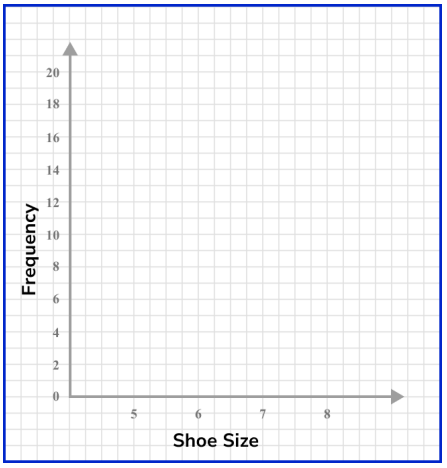
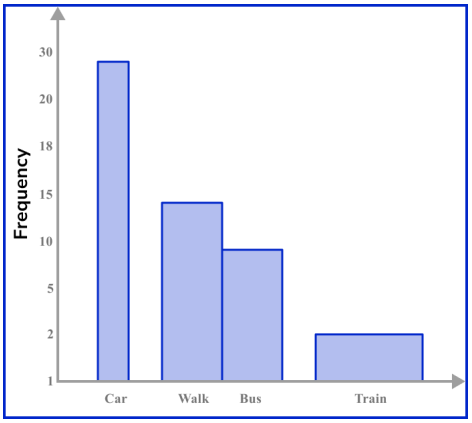
X and Y Axis - Answers

	Question	Answer
	Applied Questions	
1)	**a)** Blythe has made some mistakes Explain what mistakes she has made **b)** Draw the correct axes for the graph	**a)** Mistakes include: • No colour labels on the x-axis, • Different size bars • Scale incorrect on the y-axis • Bar touching the y-axis **b)** 
2)	**a)** Sam has made some mistakes on his axes. Explain what mistakes he has made. **b)** Draw the correct axes for the graph	**a)** Mistakes include: • Incorrect labelling of axes • Scaling on x axis incorrect (missed out 20) **b)**

X and Y Axis - Mark Scheme

	Question	Answer	
	Exam Questions		
1) (a)	By using the appropriate scales draw the x and y axis on the graph paper below Shoe Size / Frequency 5 / 10 6 / 11 7 / 6 8 / 3	**(a)**  For correct x- axis scale For correct y- axis scale Horizontal axis "Shoe Size" label **and** Vertical axis "Frequency" label	**(1)** **(1)** **(1)**
2)	Identify 3 things incorrect about this bar chart  	**Example reasons:** 1) Incorrect frequency scale 2) Bars are not the same width 3) Bars are not equally spaced 4) Y axis does not start a zero 1 reason correctly identified 2 different reasons correctly identified 3 different reasons correctly identified	 **(1)** **(1)** **(1)**

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