2.12 Bar and Composite Bar Charts: 1-hour Pack

EDEXCEL 1ST0 · Calculator allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A pie chart shows types of film chosen at a cinema. The angles of the sectors are in the table.

Choice	Angle
cartoon	45 degrees
action	30 degrees
comedy	165 degrees
horror	120 degrees

8 people chose horror.

(a) Work out how many people were asked altogether.

(b) Work out how many people chose cartoon.

(Total for Question 1 is 4 marks)

© Revision Library | revisionlibrary.co.uk

2 45 people were asked about types of film chosen at a cinema. The results are in the table.

Choice	Frequency
horror	19
comedy	7
action	13
drama	6

A pie chart is to be drawn. Work out the angle for each choice. Show that the angles add up to 360 degrees.

(Total for Question 2 is 4 marks)

---

3 A composite bar chart shows the number of train and bus for three categories. For each bar, the bottom segment shows the train and the top segment shows the bus. The vertical axis shows the number of people.

Bar	Bottom segment	Whole bar
Year 7	bottom segment (train) reaches 37	whole bar reaches 86
Year 8	bottom segment (train) reaches 17	whole bar reaches 70
Year 9	bottom segment (train) reaches 43	whole bar reaches 59

(a) How many bus are there in the bar for Year 7?
(b) Which bar has the greatest number of bus, and how many bus is this?
(c) Work out the total number of train in all three bars.

(Total for Question 3 is 5 marks)

© Revision Library | revisionlibrary.co.uk

4 In a pie chart about how pupils travel to school, the sector for walk has an angle of 124 degrees and 31 people chose walk. The sector for bus has an angle of 20 degrees.

(a) Write the walk sector as a percentage of the whole.

(b) How many people chose bus?

(Total for Question 4 is 4 marks)

© Revision Library | revisionlibrary.co.uk

5 A pie chart shows types of film chosen at a cinema. The angles of the sectors are in the table.

Choice	Angle
horror	68 degrees
comedy	8 degrees
drama	64 degrees
cartoon	220 degrees

2 people chose comedy.

(a) Work out how many people were asked altogether.

(b) Work out how many people chose drama.

(Total for Question 5 is 4 marks)

---

6 A composite bar chart shows the number of boys and girls for three categories. For each bar, the bottom segment shows the boys and the top segment shows the girls. The vertical axis shows the number of people.

Bar	Bottom segment	Whole bar
Monday	bottom segment (boys) reaches 27	whole bar reaches 37
Tuesday	bottom segment (boys) reaches 28	whole bar reaches 61
Wednesday	bottom segment (boys) reaches 44	whole bar reaches 87

(a) How many girls are there in the bar for Monday?

(b) Which bar has the greatest number of girls, and how many girls is this?

(c) Work out the total number of boys in all three bars.

(Total for Question 6 is 5 marks)

© Revision Library | revisionlibrary.co.uk

7 A pie chart shows how a company's staff spend lunch breaks. The angles of the sectors are in the table.

Choice	Angle
desk	16 degrees
shops	116 degrees
gym	52 degrees
outside	144 degrees
canteen	32 degrees

29 people chose shops.

(a) Work out how many people were asked altogether.

(b) Work out how many people chose gym.

(Total for Question 7 is 4 marks)

---

8 120 people were asked about fruit chosen at a tuck shop. The results are in the table.

Choice	Frequency
banana	47
apple	11
orange	35
pear	27

A pie chart is to be drawn. Work out the angle for each choice. Show that the angles add up to 360 degrees.

(Total for Question 8 is 4 marks)

© Revision Library | revisionlibrary.co.uk

9 A composite bar chart shows the number of train and bus for three categories. For each bar, the bottom segment shows the train and the top segment shows the bus. The vertical axis shows the number of people.

Bar	Bottom segment	Whole bar
2021	bottom segment (train) reaches 40	whole bar reaches 83
2022	bottom segment (train) reaches 14	whole bar reaches 25
2023	bottom segment (train) reaches 31	whole bar reaches 71

(a) How many bus are there in the bar for 2023?
(b) Which bar has the greatest number of bus, and how many bus is this?
(c) Work out the total number of train in all three bars.

(Total for Question 9 is 5 marks)

---

10 24 people were asked about types of film chosen at a cinema. The results are in the table.

Choice	Frequency
comedy	5
cartoon	10
action	6
horror	3

A pie chart is to be drawn. Work out the angle for each choice. Show that the angles add up to 360 degrees.

(Total for Question 10 is 4 marks)

© Revision Library | revisionlibrary.co.uk

11 A pie chart shows pets owned by families. The angles of the sectors are in the table.

Choice	Angle
cat	135 degrees
bird	36 degrees
fish	171 degrees
rabbit	18 degrees

15 people chose cat.

(a) Work out how many people were asked altogether.

(b) Work out how many people chose bird.

(Total for Question 11 is 4 marks)

---

12 A composite bar chart shows the number of adults and children for three categories. For each bar, the bottom segment shows the adults and the top segment shows the children. The vertical axis shows the number of people.

Bar	Bottom segment	Whole bar
Monday	bottom segment (adults) reaches 40	whole bar reaches 84
Tuesday	bottom segment (adults) reaches 31	whole bar reaches 41
Wednesday	bottom segment (adults) reaches 39	whole bar reaches 57

(a) How many children are there in the bar for Monday?

(b) Which bar has the greatest number of children, and how many children is this?

(c) Work out the total number of adults in all three bars.

(Total for Question 12 is 5 marks)

© Revision Library | revisionlibrary.co.uk

13 A pie chart shows types of film chosen at a cinema. The angles of the sectors are in the table.

Choice	Angle
comedy	123 degrees
cartoon	93 degrees
horror	36 degrees
action	15 degrees
drama	93 degrees

41 people chose comedy.

(a) Work out how many people were asked altogether.

(b) Work out how many people chose cartoon.

(Total for Question 13 is 4 marks)

---

14 A dual bar chart compares rainfall (mm) recorded in Cardiff and in Hull for June, July and August. Cardiff: 62, 54, 48. Hull: 45, 40, 38. Work out the difference between Cardiff's total rainfall and Hull's total rainfall over the three months.

(Total for Question 14 is 3 marks)

© Revision Library | revisionlibrary.co.uk

Mark scheme · 2.12 Bar and Composite Bar Charts: 1-hour Pack

Question 1

8 / 120 or 360 / 120 x 8	**M1**
24 cao	**A1**
45 x 24 / 360	**M1**
3 cao	**A1**

Answer: (a) 24; (b) 3

Question 2

360 / 45 = 8 degrees per person	**M1**
at least 3 angles correct	**A1**
all angles 152, 56, 104, 48 cao	**A1**
angles sum to 360	**B1**

Answer: 152, 56, 104, 48

Question 3

whole bar minus bottom segment	**M1**
49 cao	**A1**
finds the top segment of each bar	**M1**
Year 8 with 53	**A1**
97 cao	**B1**

Answer: (a) 49; (b) Year 8, 53; (c) 97

Question 4

124 / 360 x 100	**M1**
34.4%	**A1**
20 / 124 x 31	**M1**
5 cao	**A1**

Answer: (a) 34.4%; (b) 5

Question 5

2 / 8 or 360 / 8 x 2	**M1**
90 cao	**A1**
64 x 90 / 360	**M1**
16 cao	**A1**

Answer: (a) 90; (b) 16

Question 6

whole bar minus bottom segment	**M1**
10 cao	**A1**
finds the top segment of each bar	**M1**
Wednesday with 43	**A1**
99 cao	**B1**

Answer: (a) 10; (b) Wednesday, 43; (c) 99

Question 7

29 / 116 or 360 / 116 x 29	**M1**
90 cao	**A1**
52 x 90 / 360	**M1**
13 cao	**A1**

Answer: (a) 90; (b) 13

Question 8

360 / 120 = 3 degrees per person	**M1**
at least 3 angles correct	**A1**
all angles 141, 33, 105, 81 cao	**A1**
angles sum to 360	**B1**

Answer: 141, 33, 105, 81

Question 9

whole bar minus bottom segment	**M1**
40 cao	**A1**
finds the top segment of each bar	**M1**
2021 with 43	**A1**
85 cao	**B1**

Answer: (a) 40; (b) 2021, 43; (c) 85

Question 10

360 / 24 = 15 degrees per person	**M1**
at least 3 angles correct	**A1**
all angles 75, 150, 90, 45 cao	**A1**
angles sum to 360	**B1**

Answer: 75, 150, 90, 45

Question 11

15 / 135 or 360 / 135 x 15	**M1**
40 cao	**A1**
36 x 40 / 360	**M1**
4 cao	**A1**

Answer: (a) 40; (b) 4

Question 12

whole bar minus bottom segment	**M1**
44 cao	**A1**
finds the top segment of each bar	**M1**
Monday with 44	**A1**
110 cao	**B1**

Answer: (a) 44; (b) Monday, 44; (c) 110

Question 13

41 / 123 or 360 / 123 x 41	**M1**
120 cao	**A1**
93 x 120 / 360	**M1**
31 cao	**A1**

Answer: (a) 120; (b) 31

Question 14

Cardiff total 62+54+48 (= 164)	**M1**
Hull total 45+40+38 (= 123)	**M1**
41 cao	**A1**

Answer: 41

© Revision Library | revisionlibrary.co.uk