



S19-30min Bar and Composite Bar Charts: 30-minute Pack

EDEXCEL 1ST0 · Calculator allowed · about 30 minutes

Total Marks

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Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

- 1** A survey asked 50 people their preferred type of exercise. The frequency table shows some of the results.

Exercise	Running	Swimming	Cycling	Yoga
Frequency	18	9	14	?

Work out the missing frequency for Yoga.

(Total for Question 1 is 2 marks)

- 2** The table shows the number of goals scored by a football team over 6 matches.

Match	1	2	3	4	5	6
Goals	2	0	3	1	4	2

Work out the total number of goals scored over the 6 matches.

(Total for Question 2 is 2 marks)

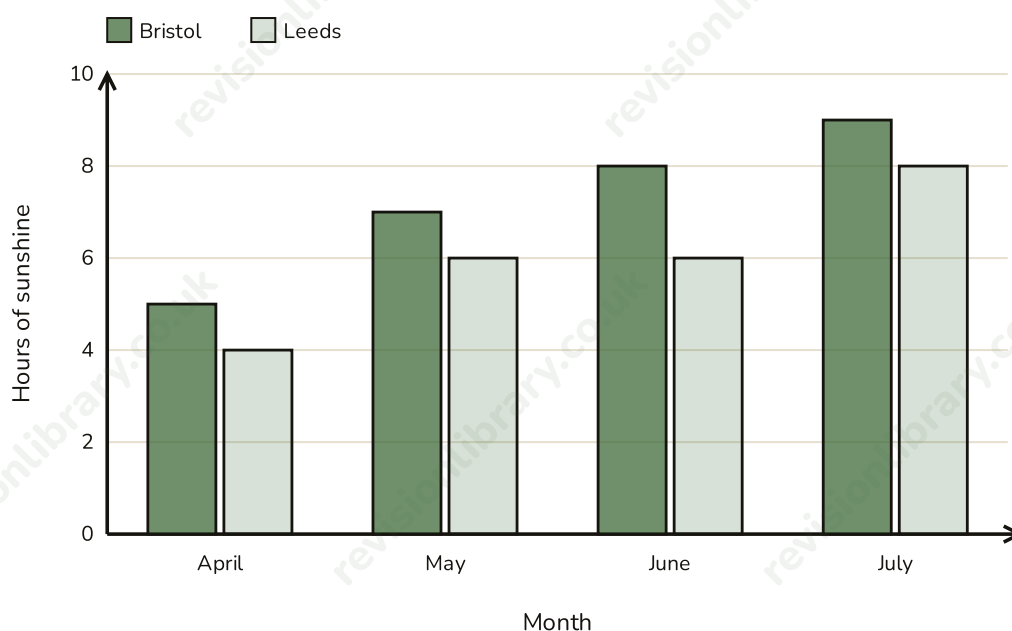
- 3** A dual bar chart compares ticket sales for two cinemas over one week. The North cinema sold 145 tickets and the South cinema sold 128 tickets. Work out how many more tickets the North cinema sold than the South cinema.

(Total for Question 3 is 2 marks)

- 4 A composite bar chart stacks the number of Win, Draw and Lose results for a team's 32 matches this season. The team won 15 matches and drew 8. Work out how many matches the team lost.

(Total for Question 4 is 2 marks)

- 5 The dual bar chart shows the number of hours of sunshine recorded in Bristol and in Leeds each month from April to July.



- (a) Write down the number of hours of sunshine recorded in Leeds in June. (1)

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- (b) Write down the month in which Bristol had the most hours of sunshine. (1)

.....

- (c) Work out the difference between Bristol's and Leeds' hours of sunshine in May. (2)

.....

- (d) Work out the total number of hours of sunshine recorded in Leeds over the four months. (2)

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(Total for Question 5 is 6 marks)

6 A researcher has collected data on the number of pupils in each of 6 tutor groups who Walk, Cycle, take the Bus, or are Driven to school. She wants to compare, in a single chart, both the total number of pupils in each tutor group and how each group is split between the four travel methods.

(a) State which type of chart would be most appropriate: a simple bar chart, a pie chart, or a composite (stacked) bar chart. **(1)**

(b) Give two reasons for your choice. **(2)**

(Total for Question 6 is 3 marks)

7 40 pupils were asked how they travel to school. The bar chart will show: Walk 14, Bus 11, Car 9, and the rest Cycle. Work out the number of pupils who cycle to school.

(Total for Question 7 is 2 marks)

8 A composite bar chart shows the number of pupils achieving Merit, Distinction or Pass in Class X, which has 28 pupils in total. 10 achieved Merit and 12 achieved Distinction. Work out how many pupils achieved a Pass.

(Total for Question 8 is 2 marks)

9 A shop's composite bar chart records weekly sales split into Online and In-store, for four weeks. The weekly totals were 120, 135, 110 and 145. Work out the mean weekly total sales across the four weeks.

(Total for Question 9 is 2 marks)

- 10** A composite bar chart shows Adults and Children attending a leisure centre over three days: Monday 40 adults and 20 children, Tuesday 36 adults and 30 children, Wednesday 50 adults and 22 children. Work out the mean daily total attendance across the three days.

(Total for Question 10 is 3 marks)

- 11** A newspaper's composite bar chart claims that, in a class of 30 pupils where every pupil chooses exactly one favourite sport, 18 prefer Football, 15 prefer Rugby and 5 prefer Netball. Explain why the chart, as described, must contain an error, and state what total the three frequencies should add up to.

(Total for Question 11 is 3 marks)

Mark scheme · S19-30min Bar and Composite Bar Charts: 30-minute Pack

Question 1

- **M1** $50 - 18 - 9 - 14$, oe
- **A1** 9 cao
- **Answer: 9**

Question 2

- **M1** $2+0+3+1+4+2$, oe (adds all six match totals)
- **A1** 12 cao
- **Answer: 12**

Question 3

- **M1** $145 - 128$, oe
- **A1** 17 cao
- **Answer: 17**

Question 4

- **M1** $32 - 15 - 8$, oe
- **A1** 9 cao
- **Answer: 9**

Question 5

- (a) **B1** 6 cao
- (a) **Answer: 6**
- (b) **B1** July cao
- (b) **Answer: July**
- (c) **M1** $7 - 6$, oe
- (c) **A1** 1 cao
- (c) **Answer: 1**
- (d) **M1** $4 + 6 + 6 + 8$, oe
- (d) **A1** 24 cao
- (d) **Answer: 24**

Question 6

- (a) **B1** a composite (stacked) bar chart cao
- (a) **Answer: A composite (stacked) bar chart**
- (b) **B1** the height of each bar shows the total number of pupils in that tutor group, so totals can be compared directly across groups
- (b) **B1** each bar is split into segments, so the numbers travelling by each method can also be read and compared within a group, without needing six separate charts
- (b) **Answer: It shows each group's total (bar height) and its split by travel method (segments) together, avoiding six separate pie charts.**

Question 7

- **M1** $40 - 14 - 11 - 9$, oe
- **A1** 6 cao
- **Answer: 6**

Question 8

- **M1** $28 - 10 - 12$, oe
- **A1** 6 cao
- **Answer: 6**

Question 9

- **M1** $(120+135+110+145) / 4$, oe
- **A1** 127.5 cao
- **Answer: 127.5**

Question 10

- **M1** daily totals found: 60, 66 and 72
- **M1** $(60+66+72) / 3$, oe
- **A1** 66 cao
- **Answer: 66**

Question 11

- **M1** $18 + 15 + 5 (= 38)$, oe
- **A1** identifies that 38 does not equal 30, so the chart must contain an error, since each pupil should be counted exactly once
- **B1** states the three frequencies should add up to 30, the total number of pupils in the class
- **Answer: $18+15+5 = 38$, which does not equal 30, so the chart must contain an error. The three frequencies should add up to 30, the total number of pupils.**