# 10.4 Graphical Skills: Line Graphs, Bar Charts and Pie Charts: 10-minute Pack

AQA 8035 · Calculators not allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

**Answer all questions. Allow approximately 10 minutes for this pack.**

**1** Which of the following is the most appropriate graph to show how monthly rainfall changes over a year for a single location?

- ☐ A bar chart
- ☐ A pie chart
- ☐ A line graph
- ☐ A scatter graph

**(Total for Question 1 is 1 mark)**

**2** State one advantage of using a bar chart rather than a pie chart when comparing the population of five towns.

**(Total for Question 2 is 1 mark)**

**3** A small farm records the percentage of land used for three crops: wheat 45, barley 25, vegetables 20, and fallow 10. State the correct type of chart to show these proportions and give one reason why.

**(Total for Question 3 is 2 marks)**


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**4** The table shows monthly visitor numbers (in hundreds) to a small coastal town for six months.

| Month | May | Jun | Jul | Aug | Sep | Oct |
|---|---|---|---|---|---|---|
| Visitors (hundreds) | 8 | 15 | 22 | 20 | 12 | 6 |

Describe the general trend shown by the data for May to October.

**(Total for Question 4 is 2 marks)**

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**5** A school surveyed how many pupils cycle to school in each year group. The counts are: Year 7: 12, Year 8: 18, Year 9: 15, Year 10: 9, Year 11: 6. Suggest the most appropriate chart to show both the counts and make it easy to compare year groups, and give one sentence reason.

**(Total for Question 5 is 2 marks)**

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**6** A teacher plotted the bar chart for three classes showing numbers of pupils choosing different after-school clubs: Art 12, Football 18, Drama 9. State two reasons why the teacher might choose a compound bar chart if she also wanted to show male and female counts within each club.

**(Total for Question 6 is 2 marks)**


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# Mark scheme · 10.4 Graphical Skills: Line Graphs, Bar Charts and Pie Charts: 10-minute Pack

## Question 1

A bar chart, because monthly rainfall is a discrete total for each month rather than a continuously measured variable **B1**

**Answer: A bar chart**

## Question 2

it is easier to compare exact values or differences between towns, oe **B1**

**Answer: It is easier to compare exact values or differences between the towns.**

## Question 3

pie chart identified **B1**

because it shows proportions of a whole visually, oe **B1**

**Answer: Pie chart, because it shows proportions of the whole farm area visually.**

## Question 4

visitors increase from May to a peak in July, oe **B1**

then decrease from July to October, oe **B1**

**Answer: Visitor numbers rise from May to a peak in July, then fall steadily from July through to October.**

## Question 5

bar chart identified **B1**

reason: bar charts make comparing discrete counts between categories easy, oe **B1**

**Answer: A bar chart, because bars make it easy to compare the number of pupils cycling in each year group.**

## Question 6

it allows the total per club and the breakdown by male/female to be seen together, oe **B1**

it makes comparison between clubs and between genders within the same club straightforward, oe **B1**

**Answer: A compound bar chart shows both the total per club and the male/female breakdown together, and it makes comparison between clubs and comparison between genders within each club straightforward.**


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