

Year 4: Solving problems and reasoning with charts: answers

Year 4 - Pictograms, Bar Charts and Time Graphs - Lesson 11.7

Answers. Final answers to the worksheet questions. Full step-by-step solutions for every question are free at websink.site/ks2-sats/maths/year-4/ch11-statistics/solving-problems-and-reasoning-with-charts/

Exercise 11G Problems and reasoning Non-calculator

1 Which chart is best for each? Choose from: a tally chart, a bar chart or a pictogram, a time graph.

- (a) The number of children who choose each flavour of ice cream

Answer: A bar chart or a pictogram

- (b) How the height of a baby changes each month

Answer: A time graph

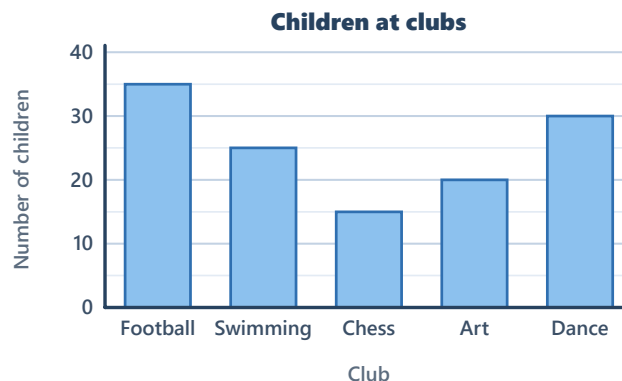
- (c) The votes for a class pet, as the votes are called out

Answer: A tally chart

- (d) The temperature of a cup of tea as it cools

Answer: A time graph

2 Use the clubs bar chart.



- (a) How many more children go to dance than to art?

Answer: 10

- (b) How many children go to chess, art or dance altogether?

Answer: 65

- (c) How many more children go to football and dance together than to swimming and art together?

Answer: 20

3 The pictogram shows the books borrowed each day.



- (a) Which day had twice as many books borrowed as Monday?

Answer: Tue

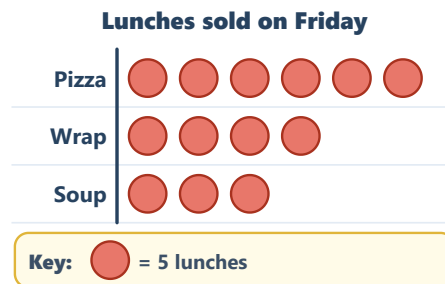
- (b) How many books were borrowed from Monday to Friday?

Answer: 125

- (c) How many more books were borrowed on Tuesday than on Thursday?

Answer: 30

- 4 The pictogram shows the lunches sold on Friday. Pizza costs £2, wraps cost £3 and soup costs £1.



- (a) How much money was taken for pizza?

Answer: £60

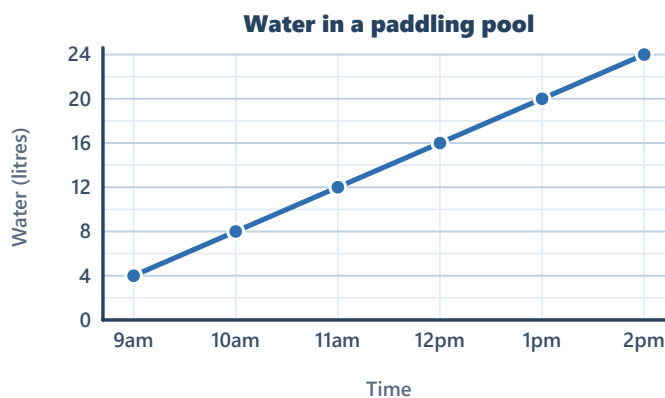
- (b) How much money was taken for soup?

Answer: £15

- (c) How much money was taken for wraps?

Answer: £60

- 5 The paddling pool is filling up at the same speed all day.



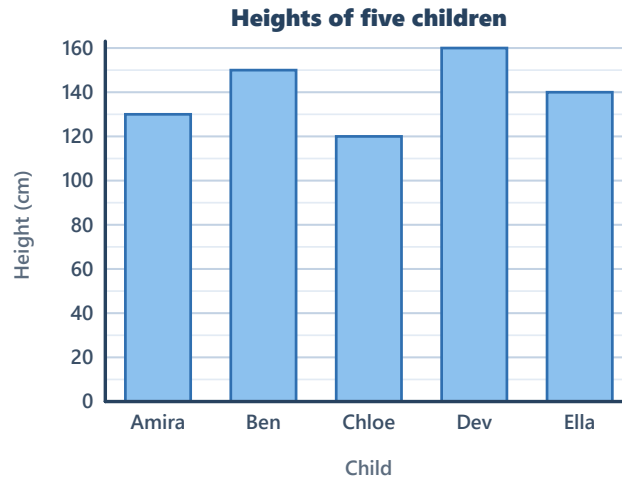
- (a) How many litres will there be at 3pm?

Answer: 28

- (b) How many litres will there be at 5pm?

Answer: 36

- 6 The bar chart shows the heights of five children.



- (a) What is the difference between the tallest and the shortest child?

Answer: 40

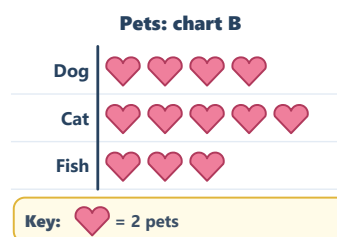
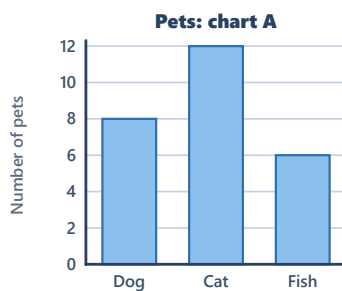
- (b) How tall is Chloe?

Answer: 120

- (c) How much taller is Ben than Amira?

Answer: 20

- 7 Three charts show how many pets some children have. Which two charts show the same data?



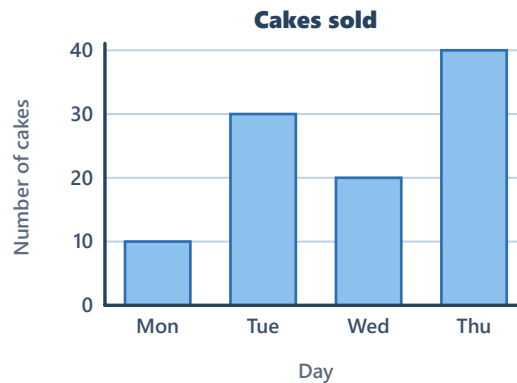
Answer: A and C

- 8 Priya says, "Tuesday has 9 stickers." She counted the symbols. What mistake has she made? What is the correct number?



Answer: She forgot the key. Tuesday has 18

- 9 Noah looks at the bar chart and says, "Wednesday is 2, because the bar reaches the second gridline." What mistake has he made? What does the bar really show?



Answer: He counted gridlines. It shows 20

- 10 Is each statement true or false? Use the books pictogram. Give a reason.



- (a) Thursday had the fewest books borrowed.

Answer: True

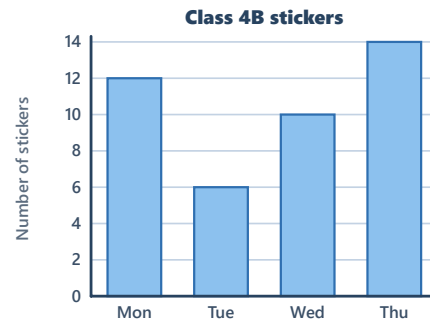
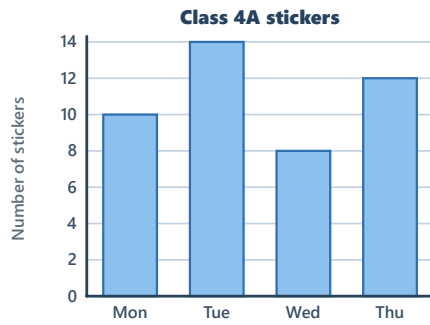
- (b) More books were borrowed on Wednesday than on Friday.

Answer: False

- (c) Altogether, 125 books were borrowed.

Answer: True

- 11 The two bar charts show the stickers earned by two classes. Both use the same scale.



- (a) Which class earned more stickers in total?

Answer: Class 4A (44 against 42)

- (b) How many more stickers did Class 4A earn than Class 4B in total?

Answer: 2

- 12** A bar chart has four bars for Mon, Tue, Wed and Thu. In total, 60 pupils are shown. Tuesday has 10 pupils. Monday has twice as many as Tuesday. Wednesday has 10 more than Tuesday. How many pupils does Thursday have?

Answer: 10

- 13** Ella says, "A time graph is a good way to show the number of children who like each fruit." Do you agree? Explain.

Answer: No. A time graph shows change over time. A bar chart is better