Test answers - Bar charts and time graphs

Year: Year 4 · Duration: 35 minutes · /20

Answer to Question 1 (4 marks)

a. Go to the top of the blue bar and read across to the scale: **14** children chose blue (1 mark).
b. The shortest bar is green, at 6, so **green** is the least popular colour (1 mark).
c. Blue has 14 and red has 8: 14 − 8 = **6** more children chose blue (1 mark).
d. Read every bar: red 8, blue 14, green 6, yellow 10. Add them: 8 + 14 = 22, 22 + 6 = 28, 28 + 10 = **38** children (1 mark).

Answer to Question 2 (4 marks)

a. Bea has 5 full circles and each full circle is 5 books: 5 × 5 = **25** books (1 mark).
b. Ali has 3 full circles: 3 × 5 = **15** books (1 mark).
c. Cal has 2 full circles, which is 2 × 5 = 10 books. Add all three children: 15 + 25 + 10 = **50** books. No half circles appear, so there are no 2.5 values to add (2 marks: 1 for Cal = 10, 1 for 50).

Answer to Question 3 (4 marks)

a. **55 °C** (1 mark).
b. 90 − 70 = **20 °C** (1 mark).
c. The line is steepest from 0 to 5 minutes (a fall of 20): **0 to 5 minutes** (1 mark).
d. The line is not completely flat: it still falls by 5 °C from 15 to 20 minutes, but it falls more slowly (1 mark).

Answer to Question 4 (4 marks)

a. A scale of **5 per square** is good: 65 needs 13 squares, or a scale of 10 per square: 6.5 squares (1 mark for a good choice, 1 mark for a reason). A scale of 1 would need 65 squares: too many.
b. 35 ÷ 5 = **7 squares** (1 mark).
c. 20 + 35 + 50 + 65 = **170** (1 mark).

Answer to Question 5 (4 marks)

a. The biggest number in the table is 30, so **Cara** swam the most lengths. Dan swam 12, so the difference is 30 − 12 = **18** lengths (2 marks: 1 for Cara, 1 for 18).
b. Ben swam 18 lengths of 25 m: 18 × 25 = 10 × 25 + 8 × 25 = 250 + 200 = **450 m** (1 mark).
c. Total: 24 + 18 + 30 + 12 = 84 lengths. 84 is less than 100, so **no**, they did not reach the target; they were 16 lengths short (1 mark).