Data Handling & Probability: Medium Practice Paper 2 Answers

Q#	Answer	Explanation
1	C	Find the juice bar and read across to the scale. Its top sits a quarter of the way between 20 and 40, at 25 drinks.
2	A	The coffee bar reaches 70 and the tea bar reaches 45, so the difference is 70 − 45 = 25 drinks.
3	D	Add the four bars: 45 + 70 + 25 + 60 = 200 drinks. There are four types of drink, so the mean is 200 ÷ 4 = 50.
4	B	A full turn of 360° stands for all 60 pupils, so each pupil is worth 360 ÷ 60 = 6°. The maths sector of 120° is therefore 120 ÷ 6 = 20 pupils.
5	A	The art sector is 60° out of 360°, which is one sixth of the circle. One sixth of the 60 pupils is 60 ÷ 6 = 10 pupils.
6	E	Add every number in the table: 36 + 54 + 28 + 22 = 140 tickets.
7	C	Read along the cinema row: 54 children and 36 adults. The difference is 54 − 36 = 18.
8	D	If the mean of four numbers is 12, they add up to 4 × 12 = 48. The three known numbers give 9 + 15 + 10 = 34, so the fourth is 48 − 34 = 14.
9	B	Five of the ten sections are yellow, so the other 10 − 5 = 5 are not. The probability is 5 out of 10, which simplifies to 1/2.
10	E	The line only falls after 3 pm. From 3 pm to 6 pm it drops 19 − 16 = 3 degrees, but from 6 pm to 9 pm it drops 16 − 11 = 5 degrees, which is the bigger fall.
11	A	The two whole squares are 2 × 12 = 24 cakes, and the half square is half of 12, which is 6. Altogether that is 24 + 6 = 30 cakes.
12	C	With 20 matches the median sits between the 10th and 11th values in order. Counting up, 2 + 5 = 7 matches had 0 or 1 goal, and the next 6 matches all had 2 goals, so the 10th and 11th are both 2.

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13	B	The theatre row has 28 + 22 = 50 tickets and 22 of them are children's tickets. That is 22 out of 50, and dividing both numbers by 2 gives 11/25.
14	D	Since 6 like neither, 40 − 6 = 34 pupils like at least one fruit. Adding the two lists gives 22 + 19 = 41, which counts the both group twice, so the both group is 41 − 34 = 7.
15	E	The multiples of 3 on a dice are 3 and 6, so 2 faces out of 6 win, which is a third of the rolls. A third of 60 is 60 ÷ 3 = 20.

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