Data Handling & Probability: Medium Practice Paper 4 Answers

Q#	Answer	Explanation
1	C	Find the Year 5 bar and read across to the scale. Its top sits halfway between 20 and 30, at 25 books.
2	A	Read each bar and add them: 20 + 35 + 25 + 40 = 120 books.
3	D	The four bars come to 20 + 35 + 25 + 40 = 120 books. There are four year groups, so the mean is 120 ÷ 4 = 30.
4	E	Wednesday has 6 whole circles and each circle stands for 8 dinners, so that is 6 × 8 = 48 dinners.
5	B	Monday has 5 circles, which is 5 × 8 = 40 dinners. Tuesday has 3 whole circles worth 24 and a half circle worth 4, giving 24 + 4 = 28. The difference is 40 − 28 = 12.
6	D	Five numbers with a mean of 8 add up to 5 × 8 = 40. The four known numbers give 5 + 9 + 12 + 6 = 32, so the fifth number is 40 − 32 = 8.
7	A	In order they are 6, 7, 9, 10, 11, 12, 14, 15. With eight numbers the median lies between the fourth and fifth: 10 + 11 = 21, and 21 ÷ 2 = 10.5.
8	C	The range is the largest take away the smallest, so the largest is the smallest plus the range: 7 + 18 = 25.
9	E	The sweets that are not mint are the lemons and toffees: 7 + 8 = 15 of the 24. The probability is 15 out of 24, and dividing both numbers by 3 gives 5/8.
10	B	A full turn of 360° stands for all 90 books, so each degree is worth 90 ÷ 360 = 0.25 books. The adventure sector of 80° is therefore 80 × 0.25 = 20 books.
11	D	An angle of 120° out of 360° is one third of the circle, so one third of the books are mystery books. One third of 90 is 90 ÷ 3 = 30.

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12	A	Read along the Year 6 row, leaving out the pupils with no pet: 13 + 7 = 20 pupils own a pet.
13	E	The table covers 11 + 9 + 5 + 13 + 7 + 5 = 50 pupils, and the no pet column holds 5 + 5 = 10 of them. That is 10 out of 50, which simplifies to 1/5.
14	C	At 10 am the walker was 4 km from home and at 12 pm was 12 km from home, so the distance covered was 12 − 4 = 8 km.
15	B	There are 2 results for the coin and 6 for the dice, giving 2 × 6 = 12 equally likely pairs in total. Only one of those pairs is a head with a 6, so the probability is 1/12.

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