Rounding & Estimating: Medium Practice Paper 6 Answers

Q#	Answer	Explanation
1	A	Rounding to the nearest ten thousand is decided by the thousands digit. Brent has 6 thousands, so it rounds up to 40,000. Alton has 4 thousands and rounds down to 30,000, while Corby rounds up to 50,000.
2	D	His estimate is 40 × 20 = 800, while the true answer is 38 × 21 = 798. Rounding 38 up by 2 adds more than rounding 21 down by 1 takes away, so the estimate comes out too big.
3	B	The nearest multiples of 5p on either side are £7.80 and £7.85. The bill is 3p above £7.80 but only 2p below £7.85, so £7.85 is nearer.
4	D	Rounded to the nearest pound the prices become 4, 6, 2 and 5. Adding these gives 4 + 6 + 2 + 5 = 17 pounds.
5	E	Round both numbers to make the division easy: about 600 shared into groups of about 20. Since 600 ÷ 20 = 30, the answer is near 30.
6	B	Reading the bars and rounding each to the nearest 10 gives 40, 50, 60 and 50. Adding them, 40 + 50 + 60 + 50 = 200 visitors.
7	A	To round to 4,000 the number must be at least 3,950 and less than 4,050. All the others fall inside that band, but 3,946 is below it and would round to 3,900.
8	E	The multiples of 5 on either side are 65 and 70. As 68 is 3 above 65 but only 2 below 70, it is nearer to 70.
9	C	Rounding both numbers to 50 gives an estimate of 50 × 50 = 2500. The pupil's answer of 2,499 is only one away from that, so it is a sensible answer.
10	B	A centimetre is a hundredth of a metre, so this is rounding to two decimal places. The next digit is 4, which is less than 5, so the number rounds down to 2.67 m.

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11	C	Round the numbers to something easy: 9% is nearly 10%, and 412 is nearly 400. A tenth of 400 is 400 ÷ 10 = 40, so the answer is about 40.
12	D	The seconds fall between 40 and 50. As 47 is 7 above 40 but only 3 below 50, the time rounds up to 3 minutes 50 seconds.
13	A	Twenty-three books hold 230 tickets, which is not quite enough. The last 6 tickets still need a whole book, so the club must round up and buy 24 books.
14	C	The true answer is 38 × 42 = 1596. The estimates come to 1,600, 1,800, 1,400, 2,000 and 1,200, so 40 × 40 is nearest because one number is rounded up and the other down by the same amount.
15	E	Look for the square numbers on either side of 30. Since 5 × 5 = 25 and 6 × 6 = 36, the square root of 30 must be between 5 and 6.

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