Fractions, Decimals & Percentages: Medium Practice Paper 8 Answers

Q#	Answer	Explanation
1	B	Work out what each shop actually charges. Shop A takes 10% off £60, which is £6 off, leaving £54. Shop B takes 25% off £70, which is £17.50 off, leaving £52.50. Shop C stays at £55. The cheapest is Shop B, even though it starts with the highest price.
2	C	Ten per cent of £60 is 60 ÷ 10 = 6 pounds. That is the amount taken off, so the coat costs 60 − 6 = 54 pounds.
3	C	Ten per cent of 250 is 25, so 20% is 25 × 2 = 50. Two per cent is a fifth of ten per cent, which is 25 ÷ 5 = 5. Taking that off gives 50 − 5 = 45.
4	D	Ten per cent of 140 is 14 and five per cent is half of that, which is 7, so 15% is 14 + 7 = 21. Adding it on gives 140 + 21 = 161.
5	D	Ten per cent of £90 is £9, so 30% is 9 × 3 = 27 pounds. Taking that off gives 90 − 27 = 63 pounds.
6	C	If 60% is 42 then 10% is six times smaller, so 42 ÷ 6 = 7. The whole number is 100%, which is ten lots of that: 7 × 10 = 70.
7	C	The rise is 29 − 25 = 4 pounds, and that is compared with the original £25. As a fraction it is 4/25, and multiplying top and bottom by 4 gives 16/100, which is 16%.
8	D	Ben's extra height is 20% of Amy's, not of his own. Ten per cent of 150 cm is 15 cm, so 20% is 15 × 2 = 30 cm. Ben is therefore 150 + 30 = 180 cm tall.
9	D	Her score as a fraction is 18/24, and both numbers divide by 6, giving 3/4. Three quarters written as a percentage is 75%.
10	B	Work from the inside out. Forty per cent of 300 is 300 ÷ 10 = 30 for each ten per cent, so 30 × 4 = 120. Then 50% of 120 is half of it, which is 120 ÷ 2 = 60.

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11	C	Ten per cent of £40 is 40 ÷ 10 = 4 pounds, and the tip is added to the bill rather than taken off. The total paid is 40 + 4 = 44 pounds.
12	A	A quarter of £80 is 80 ÷ 4 = 20 pounds, so the percentage offer takes £20 off. That is more than the £18 offer, by 20 − 18 = 2 pounds.
13	E	The Year 5 bar reaches 25, so a quarter of that year group cycles. A quarter of 80 pupils is 80 ÷ 4 = 20.
14	B	49% is very nearly a half and 802 is very nearly 800, so the answer is close to half of 800, which is 400. Rounding sensibly like this is a good way to check an answer.
15	C	Two shirts at full price would be 20 × 2 = 40 pounds. Under the offer one is £20 and the other is half of that, £10, so £30 is paid and £10 is saved. As a fraction of the full price that is 10/40, which is a quarter, or 25%.

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