Fractions, Decimals & Percentages: Hard Practice Paper 3 Answers

Q#	Answer	Explanation
1	C	The decrease is £9. As a fraction of the original price that is 9/45 = 1/5, and 1/5 = 20%.
2	B	'Of' means multiply: 3/8 × 2/3 = 6/24, which simplifies to 1/4.
3	D	10% of £180 is £18, so 40% is £72. 5% is £9, so 45% is £81. Then £180 + £81 = £261.
4	C	Change 4 1/2 to 9/2. To divide by 3/4, turn it upside down and multiply: 9/2 × 4/3 = 36/6 = 6.
5	A	As decimals: 1/7 ≈ 0.1429, 16.5% = 0.165, 0.166, 0.1666 and 1/6 ≈ 0.1667. The smallest is about 0.1429, which is 1/7.
6	B	After year 1: 20% of £10,000 is £2,000, leaving £8,000. After year 2: 20% of £8,000 is £1,600, leaving £6,400.
7	D	The difference between the two fractions is 3/5 − 1/3 = 9/15 − 5/15 = 4/15. So 4/15 of the number is 12, which means 1/15 is 3, and the number is 3 × 15 = 45.
8	C	Multiply both numbers by 100 to give 60 ÷ 4 = 15. Check: 15 × 0.04 = 0.6.
9	C	If 65% is 91, then 5% is 91 ÷ 13 = 7. The whole number (100%) is 7 × 20 = 140.
10	B	0.875 is 875/1000. Dividing top and bottom by 125 gives 7/8.
11	C	3/4 of 240 is 180. Half of 180 is 90. Then 2/3 of 90 is 90 ÷ 3 × 2 = 60.
12	B	If 2/5 is 26, then 1/5 is 13, so the number is 13 × 5 = 65. Then 30% of 65 is 6.5 × 3 = 19.5.
13	B	The lowest common denominator of 6 and 8 is 24. 5/6 = 20/24 and 3/8 = 9/24, so 20/24 − 9/24 = 11/24.
14	C	The sale price is 85% of the original. So 85% = £102, which means 5% = £102 ÷ 17 = £6. The original price (100%) is £6 × 20 = £120.

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15	C	2 hours is 120 minutes, so the fraction is 36/120 = 3/10. As a percentage that is 30%.

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