Algebra & Sequences: Medium Practice Paper 2 Answers

Q#	Answer	Explanation
1	C	Replace n with 6: $5 \times 6 - 2 = 30 - 2 = 28$.
2	C	Add 3 to both sides: $4x = 24$. Then divide by 4: $x = 6$.
3	C	The sequence goes up in 5s. From the 1st to the 12th term there are 11 steps, so $7 + 11 \times 5 = 62$.
4	B	$5x = 5 \times 4 = 20$ and $2y = 2 \times 6 = 12$, so $20 - 12 = 8$.
5	D	The terms are 1, then $1 \times 2 + 2 = 4$, then $4 \times 2 + 2 = 10$, then $10 \times 2 + 2 = 22$.
6	A	Collect the b terms: $6b + 3b = 9b$. Then collect the numbers: $2 - 5 = -3$, giving $9b - 3$.
7	C	The sequence goes up in 9s, so the missing term is $4 + 9 = 13$.
8	C	Add 4 to both sides: $5n = 35$. Then divide by 5: $n = 7$.
9	A	The £20 joining fee is paid once, and the monthly charge is 8 for each month, which is 8m, giving $20 + 8m$.
10	C	The terms are 100, 88, 76, 64, 52, 40, 28. The 6th term is exactly 40, so the 7th term, 28, is the first one below 40.
11	C	The sequence goes up in 3s, so start with 3n, which gives 3, 6, 9, 12. Each term is 1 more, so the rule is $3n + 1$.
12	C	m^2 means $5 \times 5 = 25$, and then $25 - 5 = 20$.
13	D	The 9th square number is $9 \times 9 = 81$.
14	C	Take 2 from both sides: $x \div 3 = 4$. Then multiply by 3: $x = 12$.
15	C	Work backwards: $18 \div 2 = 9$, and $9 + 4 = 13$. Checking, $(13 - 4) \times 2 = 18$.

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