Algebra & Sequences: Medium Practice Paper 1 Answers

Q#	Answer	Explanation
1	D	Replace n with 5: $4 \times 5 + 1 = 20 + 1 = 21$.
2	B	Take 4 from both sides: $3x = 15$. Then divide by 3: $x = 5$.
3	C	The sequence goes up in 4s. From the 1st to the 10th term there are 9 steps, so $2 + 9 \times 4 = 38$.
4	C	$2x = 2 \times 5 = 10$ and $3y = 3 \times 3 = 9$, so the total is $10 + 9 = 19$.
5	D	The terms are 3, then $3 \times 2 - 1 = 5$, then $5 \times 2 - 1 = 9$, then $9 \times 2 - 1 = 17$.
6	B	All the terms have the same letter, so just work with the numbers: $4 + 3 - 2 = 5$, giving 5a.
7	C	The sequence goes up in 8s, so the missing term is $5 + 8 = 13$.
8	C	Add 7 to both sides: $2n = 16$. Then divide by 2: $n = 8$.
9	A	The £3 is charged once, and the miles cost 2 for each mile, which is 2m, giving $3 + 2m$.
10	C	The terms are 40, 34, 28, 22, 16, 10, 4, −2, so the 8th term is the first below zero.
11	C	The sequence goes up in 3s, so start with 3n, which gives 3, 6, 9, 12. Each term is 2 more than this, so the rule is $3n + 2$.
12	D	p^2 means $4 \times 4 = 16$, and then $16 + 3 = 19$.
13	D	The gaps grow by one each time, so after 15 comes $15 + 6 = 21$ and then $21 + 7 = 28$.
14	D	Multiply both sides by 4: $x = 7 \times 4 = 28$. Checking, $28 \div 4 = 7$.
15	B	Work backwards: $26 - 5 = 21$, and $21 \div 3 = 7$. Checking, $7 \times 3 + 5 = 26$.

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