

等差数列

题目 1: 已知数列 a_n 是等差数列, 且 $a_1 + a_3 + a_4 = -56$, $a_5 + a_7 + a_8 = 100$, 则 $a_4 + a_6 + a_7 =$

A. 55 B. 58 C. 61 D. 64

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$$a_1 + a_3 + a_4 = a_1 + (a_1 + 2d) + (a_1 + 3d) = 3a_1 + 5d = -56$$

$$a_5 + a_7 + a_8 = (a_1 + 4d) + (a_1 + 6d) + (a_1 + 7d) = 3a_1 + 17d = 100$$

$$\Rightarrow 12d = 156 \quad \Rightarrow d = 13$$

$$\therefore a_4 + a_6 + a_7 = (a_5 - d) + (a_7 - d) + (a_8 - d) = a_5 + a_7 + a_8 - 3d = 100 - 39 = 61$$

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正确答案为选项 C.