MC Practice

1. In the sequence above, the first term is 4 and each term after the first is 7 more than the previous term. What is the 12th term of the sequence?

$a_{12} = 4 + (11 \cdot 7) \quad = 4 + 77$
$= 81$

a. 77
b. 81
c. 84
d. 86

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2. Find the 25th term of the sequence 7, 11, 15, 19, 23, ...

$a = 4$
$a_{25} = 7 + (24 \cdot 4)$
$= 7 + 96$
$= 103$

a. 103
b. 104
c. 107
d. 111

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3. Which represents the nth term of this sequence? 31, 36, 41, 46, 51, ...

$31 + (n-1)5$

a. $51+(n-1)6$
b. $51+(n-1)5$
c. $31+(n-1)6$
d. $31+(n-1)5$

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4. What is the 9th term in this sequence? 20, 14, 8, 2,...

$a = -6$
$a_9 = 20 + (8 \cdot -6)$
$= 20 - 48$
$= -28$

a. 62
b. -4
c. -22
d. -28

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5. What are the first four terms in the sequence whose nth term is $a_n = (-2)^n + 1$

$-2^1 + 1 \quad (-2)^2 + 1 \quad (-2)^3 + 1 \quad (-2)^4 + 1$
$-1, 5,$

a. 3, 4, 5, 6
b. -1, 1, -1, 1
c. -1, 5, -7, 17
d. -2, 4, -8, 16

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6. The 8th term of an arithmetic sequence is 36. If the common difference is 2, what is the first term in the sequence?

$a_8 = a_1 + (8-1)2$
$36 = a_1 + 14$
$= 22$

a. 22
b. 24
c. 38
d. 6