

## Arithmetic Sequences

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**Given the explicit formula for an arithmetic sequence find the first five terms.**

1)  $a_n = -11 - 7n$

2)  $a_n = -7 + 8n$

3)  $a_n = 28 + 10n$

4)  $a_n = -211 + 200n$

5)  $a_n = -40 + 9n$

6)  $a_n = 213 - 200n$

**Given the explicit formula for an arithmetic sequence find the term named in the problem.**

7)  $a_n = 4 + 5n$

Find  $a_{29}$ 

8)  $a_n = -16 - 7n$

Find  $a_{32}$ 

9)  $a_n = -12 + 8n$

Find  $a_{29}$ 

10)  $a_n = 63 - 30n$

Find  $a_{38}$ 

11)  $a_n = 11 + 10n$

Find  $a_{22}$ 

12)  $a_n = -46 + 10n$

Find  $a_{38}$ **Find the explicit formula.**

13) 11, 9, 7, 5, ...

14) 40, -60, -160, -260, ...

15) -33, 67, 167, 267, ...

16) -28, -128, -228, -328, ...

17) 28, 48, 68, 88, ...

18) 36, 32, 28, 24, ...

19) 4, 9, 14, 19, ...

20) -8, -38, -68, -98, ...

21) 24, 33, 42, 51, ...

22) 16, 19, 22, 25, ...

23) -21, -15, -9, -3, ...

24) -16, -20, -24, -28, ...

## Answers to Arithmetic Sequences (ID: 1)

- 1)  $-18, -25, -32, -39, -46$       2)  $1, 9, 17, 25, 33$       3)  $38, 48, 58, 68, 78$   
4)  $-11, 189, 389, 589, 789$       5)  $-31, -22, -13, -4, 5$       6)  $13, -187, -387, -587, -787$   
7)  $a_{29} = 149$       8)  $a_{32} = -240$       9)  $a_{29} = 220$       10)  $a_{38} = -1077$   
11)  $a_{22} = 231$       12)  $a_{38} = 334$       13)  $a_n = 13 - 2n$       14)  $a_n = 140 - 100n$   
15)  $a_n = -133 + 100n$       16)  $a_n = 72 - 100n$       17)  $a_n = 8 + 20n$       18)  $a_n = 40 - 4n$   
19)  $a_n = -1 + 5n$       20)  $a_n = 22 - 30n$       21)  $a_n = 15 + 9n$       22)  $a_n = 13 + 3n$   
23)  $a_n = -27 + 6n$       24)  $a_n = -12 - 4n$