

## Arithmetic Sequences

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State if each sequence is arithmetic.

Yes or No

1) 36, 32, 28, 24, ...

2) 36, 40, 44, 48, ...

3) 36, -64, -164, -264, ...

4) 0, -10, -20, -30, ...

5) -37, -28, -19, -10, ...

6) -37, -137, -237, -337, ...

State  $a_1$  and  $d$  for each arithmetic sequence.

7) 21, 41, 61, 81, ...

8) -3, -23, -43, -63, ...

$$a_1 =$$

$$d =$$

9) -15, -7, 1, 9, ...

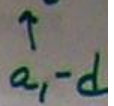
10) -40, -240, -440, -640, ...

11) -28, -26, -24, -22, ...

12) 16, -84, -184, -284, ...

Recursive:  $a_n = a_{n-1} + d; a_1 = ?$

Explicit:  $a_n = dn + a_0$



Write the recursive formula for each arithmetic sequence. State the next three terms.

- 13) -13, -19, -25, -31,     ,     ,

- 14) -1, -101, -201, -301, ...

- 15) -26, -126, -226, -326, ...

- 16) 31, 21, 11, 1, ...

Write the explicit formula for each arithmetic sequence. Show finding the 52nd term.  $a_{52} = ?$

- 17) -38, -45, -52, -59, ...

- 18) 19, 25, 31, 37, ...

$d = ?$   $a_0 = -38 - d$

Write the explicit formula for each arithmetic sequence. Find the term named in the problem.

- 19) -6, -2, 2, 6, ...

Find  $a_{39}$

- 20) 7, -3, -13, -23, ...

Find  $a_{39}$

**Find the explicit formula.**

- 21) -18, 182, 382, 582, ...

- 22) 38, 138, 238, 338, ...

**Find the recursive formula.**

- 23) 26, 24, 22, 20, ...

- 24) -30, -34, -38, -42, ...