

Arithmetic Sequence

1. Given arithmetic sequences, find the common difference and find the next two terms using these formula: $u_{n+1} - u_n = d$ for all positive integers n where d is a constant called the common difference.

Write your answer as a whole number

Given Sequence	Common difference	Next two terms
1) 14, 21, 28, 35, ...	$d = 7$	42 , 49
2) 8, 2, -4, -10, ...	$d =$	,
3) -5, 0, 5, 10, ...	$d =$	,

2. Find the 10th term of each of the following arithmetic sequences:

A. 3, 5, 7, ...

B. 5, 9, 13, ...

C. -7, -2, 3, ...

**Use the general term formula: $u_n = u_1 + (n - 1)d$, u_1 – first term, d – common difference.*

*Write your answer as a whole number.**

3. Join with arrows between the arithmetic progressions (a_n) (1–4) given by the two terms and the formulas of the n th term (A–D).

1. $a_1 = 2, a_3 = 12$	A. $a_n = 5 + 3n$
2. $a_2 = -11, a_5 = -20$	Б. $a_n = 3 + 5n$
3. $a_3 = 18, a_7 = 38$	В. $a_n = -5 - 3n$
4. $a_4 = -23, a_6 = -33$	Г. $a_n = -3 - 5n$
	Д. $a_n = -3 + 5n$