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 nth term (A–D).

1. $a_1 = 2$, $a_3 = 12$	А. $a_n = 5 + 3n$
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. $a_n = -3 + 5n$

LIVEWORKSHEETS