C11 - 1.2 - Arithmetic Series Sum terms WS

Find the sum of the first sixth terms of the sequence.

2, + 4, + 6, + _____, + _____, + _____ =

3, + 7, + 11, + _____, + _____, + _____ =

8, 14, 20, _____, _____, _____ =

7, 10, 13, _____, _____, _____

11, 14, 17, _____, _____, _____

6, 8, 10, _____, _____, _____

2, 6, 10, _____, _____, _____

3, 10, 17, _____, _____, _____

8, 13, 18, _____, _____, _____

7, 14, 21, _____, _____, _____

11, 17, 23, _____, _____, _____

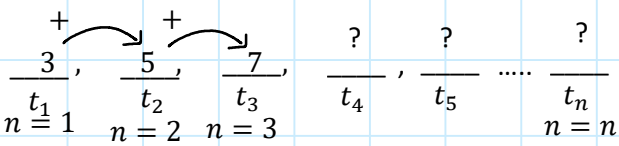
8, 7, 6, _____, _____, _____

7, 2, -3, _____, _____, _____

11, 8, 5, _____, _____, _____

6, 5, 4, _____, _____, _____

C11 - 1.2 - Arithmetic Series WS



$t_1 =$

$d = t_n - t_{n-1}$ $d = t_n - t_{n-1}$ $\boxed{d = t_n - t_{n-1}}$

$d =$ $d =$

4. *What is the sum of the first twelve terms s_{12}? $s_{12} =?, n = 12$.*

$s_n = \frac{n}{2}(t_1 + t_n)$ $t_n =$ $\boxed{s_n = \frac{n}{2}(t_1 + t_n)}$

Sum of "n" terms formula: if t_n is known.

Check your answer: $3 + 5 + 7 +$

OR

$s_n = \frac{n}{2}(2t_1 + (n-1)d)$ $\boxed{s_n = \frac{n}{2}(2t_1 + (n-1)d)}$

Sum of "n" terms formula: if t_n is not known.

C11 - 1.2 - Arithmetic Series Sum nth terms HW

Find the sum of the first 12 terms. $s_{12} = ?, n = 12$

3, 7, 11, 15, ….

$8, 14, 20, 26, 32$

$6, 13, 20, 27, 34$

Find the sum of the first 18 terms

$10, 8, 6, \ldots$

$3, -1, -5, \ldots$

$5, 2.5, 0, \ldots$

Find the sum of the first 100 terms.

7, 10, 13, …

$5, 11, 17, 23, 29$

14, 38, 62, 86, …

Find the sum of the first 251 terms.

$\frac{1}{2}, \frac{3}{2}, \frac{5}{2}, \ldots$

$\frac{9}{2}, \frac{7}{2}, \frac{5}{2}, \ldots.$

$27, 13, -1, \ldots$

C11 - 1.2 - Find 'n' Arithmetic Series HW

Find "n" the number of terms

$15, 16, 17, 18, 19 \ldots\ldots\ldots 100 \rightarrow t_n$

$t_n = t_1 + (n-1)d$

$4, 8, 12, 16, 20 \ldots\ldots\ldots 444$

$13, 15, 17, 19, \ldots\ldots\ldots .273$

$3, 5, 7, 9, 11 \ldots\ldots\ldots\ldots 139$

$9, 12, 15, 18, 21 \ldots\ldots\ldots .3342$

2, -2, -6, ……..-410

8, -6, -20,……..-160

-25, -42, -59,……..-569

C11 - 1.2 - Finding Sum, t_1, d, Arithmetic Series HW

Find n and the sum.

$12 + 18 + 24 + \ \ldots + 72$

$t_n = t_1 + (n-1)d$ $\quad s_n = \frac{n}{2}(t_1 + t_n)$

$8 + (-2) + (-12) + \ \ldots + (-102)$

$10, 12, 14, \ldots \ldots .88$

$14, 19, 24, 29, 34 \ldots \ldots 99$

$4, 8, 12, 16, \ldots \ldots 400$

$3, 5, 7, 9, \ldots \ldots \ldots 371$

$16, 21, 26, 31, \ldots \ldots 1001$