C11 - 1.1 - Arithmetic Sequence missing terms WS

Find missing terms of the sequence.

2,   4,   6,   _____,   _____,   _____

8,   14,   20,   _____,   _____,   _____

11,   6,   1,   _____,   _____,   _____,

2,   -4,   -10,   _____,   _____,   _____

-8,   -5,   -2,   _____,   _____,   _____

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

0.33,   0.34,   0.35,   _____,   _____,   _____

$\frac{1}{2}$, $\frac{1}{4}$,   0,   _____,   _____,   _____

$x, x+1, x+2,$ _____   _____   _____

_____,   _____,   _____,   8,   10,   12

5,   _____,   _____,   20,   25,

2,   _____,   _____,   8,   10,

2,   _____,   _____,   -4,   -6,

5,   _____,   17,   _____,   _____,

2,   _____,   -8,   _____,   _____,

4,   _____,   -2,   _____,   _____,

-7,   _____,   3,   _____,   _____,

7,   _____,   _____,   -32,   _____,

4,   _____,   _____,   25,   _____,

13,   _____,   _____,   _____,   81

Solve for x, and missing terms

$x+1,\ 3x-1,\ 2x+3,$ _____,   _____,
                        3,5,7, x=2

$2x+2,$ _____, $7x-5,$ $5x+5,$
                        8,12,16,20 x=3

$x^2-12,\ x^2-2x+2,\ 2x^2-3x-4,$ _____,
                        13,17,31 $x=-5$
                        4,10,16 $x=4$

C11 - 1.1 - Arithmetic first term, difference HW

Circle the first term, write $t_1 =$, *and* find the common difference, twice.

$①\,3, 5, 7, \ldots$

$t_1 = 1$

$d = 3 - 1 = ②$
$d = 5 - 3 = ②$

$3, 7, 11, 15, \ldots$

$t_1 =$

$d =$
$d =$

$8, 14, 20, 26, 32$

$10, 8, 6, \ldots$

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

$5, 2.5, 0, \ldots$

$12, 17, 22, 27, 32$

$-10, -12, -14, -16, -18$

$14, 19, 24, 29, 34$

$-\dfrac{1}{2}, -\dfrac{3}{2}, -\dfrac{5}{2}, \ldots$

$\dfrac{9}{2}, \dfrac{7}{2}, \dfrac{5}{2}, \ldots$

$27, 13, -1, \ldots$

$2, 3, 4, 5, 6$

$-3, -5, -7, -9, -11$

$5, 11, 17, 23, 29$

$9, 12, 15, 18, 21$

$16, 21, 26, 31, 36$

$0.3, 0.31, 0.32, 0.33, \ldots$

C11 - 1.1 - Arithmetic Means HW

Write the first 5 terms of the sequence

$t_1 = 2, d = 3$

$t_1 = 4, d = -3$

$t_1 = -4, d = 5$

$t_1 = -7, t_3 = 3$

$t_1 = 5, t_3 = 15$

$t_1 = 2, t_4 = -4$

$t_1 = 7, t_4 = -32$

$t_1 = 13, t_5 = 81$

$t_1 = 2x - 8, t_3 = 3x - 2$

$6, 13, 19, x = 7$

C11 - 1.1 - Arithmetic Means HW

Find t_1 and d

$t_2 = 2, t_3 = 4$

$t_2 = 15, t_3 = 20$

$t_2 = 2, t_4 = -8$

$t_2 = 8, t_4 = -32$

$t_2 = 2, t_5 = -13$

$t_2 = 3, t_6 = 23$

$t_3 = 3, t_{12} = -1527$

$t_3 = 4, t_{10} = 39$

$$\overset{+}{\overset{\frown}{\underset{\underset{n=1}{t_1}}{3}}}, \quad \overset{+}{\overset{\frown}{\underset{\underset{n=2}{t_2}}{5}}}, \quad \underset{\underset{n=3}{t_3}}{7}, \quad \overset{?}{\underset{t_4}{\underline{\quad}}}, \quad \overset{?}{\underset{t_5}{\underline{\quad}}} \quad \cdots \quad \overset{?}{\underset{\underset{n=n}{t_n}}{\underline{\quad}}}$$

$t_1 =$

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

$d =$ $\qquad d =$

Arithmetic: d must always be the _____

1. $Find\ the\ General\ term\ t_n =?$

$$\boxed{t_n = t_1 + (n-1)d}$$

$The\ first\ term\ plus\ 'n - 1'\ differences$

$What\ is\ the\ tenth\ term\ t_{10}?$

$t_n =$

Or, Start from beginning

General term formula

Remember: You could have also added the common difference 7 times to Term 3 $(t_{3)}$

$Check\ your\ answer: 3,5,7,$

$31\ is\ what\ term, t_n = 31, n =?$

$t_n =$

$Check\ your\ answer: 3,5,7,$

C11 - 1.1 - Arithmetic General Term, nth terms HW

Find the General term.   **Find the 18th term.** $t_{18} =$?   **Find out what term 63 is.** $t_n = 63$.

3,   7,   11,   15, ...

$t_1 =$ $d =$

$d =$

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

Find the General term.   **Find the 12th term.** $t_{12} =$?   **Find out what term 49 is.** $t_n = 49$.

4,   9,   14,   ...

Find the General term.   **Find the 20th term.** $t_{20} =$?   **Find out what term 64 is.** $t_n = 64$.

7,   10,   13,   ...