F&T Name _____

Arithmetic Sequence HW

Find the common difference of the arithmetic sequence.

1.) $3, \frac{5}{2}, 2, \frac{3}{2}, 1, ...$

2.) $-24, -16, -8, 0, \ldots.$

3.) Which arithmetic sequence has a common difference of 4 ?

(a) $\{0, 4n, 8n, 12n, \ldots\}$

(b) $\{n, 4n, 16n, 64n, \ldots\}$

(c) $\{n + 1, n + 5, n + 9, n + 13, \ldots\}$

(d) $\{n + 4, n + 16, n + 64, n + 256, \ldots\}$

Find the n^{th} term of the arithmetic sequence.

4.) $9, 23, 37, 51, \ldots.$

5.) $4, 1, -2, -5, \ldots.$

b. Find $f(35)$.

b. Find a_{25}.

6.) Which function below generates the **sequence**: 100 , 92 , 84 , 76 , ...

(a) $a_n = 100 + 8n$

(b) $a_n = 100 - 8(n-1)$

(c) $a_n = 100 - 8n$

(d) $a_n = 108 + 8(n-1)$

7.) Which function below generates the **sequence**: -14 , -6 , 2 , 10 , ...

(a) $f(n) = 8n - 22$

(b) $f(n) = 8n - 14$

(c) $f(n) = -14 - 8(n-1)$

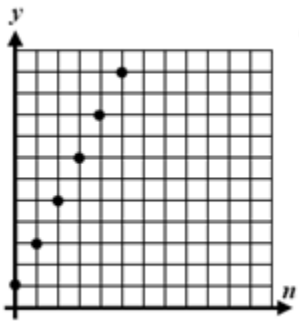
(d) $f(n) = -22 + 8(n-1)$

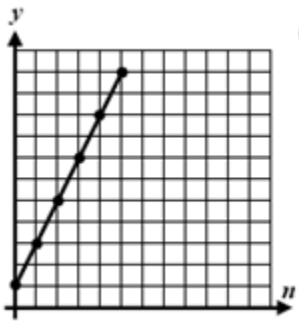
8.) A theater has 35 seats in the first row. Each row has **four more** seats than the row before it.

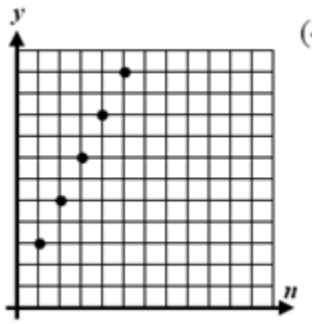
Which expression represents the number of seats in the n^{th} row?

(a) $35 + (n+4)$ (b) $35 + (4n)$ (c) $35 + (n+1)(4)$ (d) $35 + (n-1)(4)$

9.) Which of the following would represent the graph of the **sequence**: $a_n = 2n + 1$?

(1) 

(2) 

(3) 

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