Linear Test 2 Quick Review

Arithmetic Sequences

1) Determine which sequence is **NOT** arithmetic,

    a) -6, -8, -10, -12, . . .   b) -3, -6, -12, -24, . . .

    c) -11, -19, -27, -35, . . .   d) 5, 10, 15, 20, . . .

2) Determine which sequence is **NOT** arithmetic,

    a) 1, 5, 25, 125, . . .   b) 15, 17, 19, 21 . . .

    c) 24, -76, -176, -276, . . .   d) 5, 10, 15, 20, . . .

3) Given the sequence below, write the explicit equation and find the 52nd term.

$$-4, 96, 196, 296, . . .$$

    a) $a_n = 101n - 6$ b) $a_n = 101n - 107$

       $a_{52} = 5246$ $a_{52} = 5145$

    c) $a_n = 100n - 106$ d) $a_n = 100n - 104$

       $a_{52} = 5094$ $a_{52} = 5096$

4) Give the recursive formula such that $a_n = a_{n-1} + 4$ and the first term is -29, write the explicit formula.

    a) 4n – 31   b) 4n – 33

    c) 4n – 27   d) 4n – 29

Graphing and Characteristics

6) Solve for y: $- 2x - 4y = 4$

7) Graph the equation of the line in #6 and identify the key characteristics

Domain: _____   Range: _____

x intercept: _____   y intercept: _____

Increasing: _____   Decreasing: _____

f(2): _____   f(x) = -4   x = _____

f(-4): _____   f(x) = 2   x = _____

f(0): _____   f(x) = 0   x = _____

End Behavior: $as\ x \rightarrow\ -\infty\ f(x) \rightarrow$ _____

$as\ x \rightarrow\ \infty\ f(x) \rightarrow$ _____

Rate of Change: $-6 \leq x \leq 2$

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