Name: _____ Date: _____

Review for Quiz Unit 5

1. A recovering heart attack patient is told to get on a regular walking program. The patient is told to walk a distance of 5 km the first week, 8 km the second week, 11 km the third week and so on for a period of 10 weeks. At that point the patient is to maintain the distance walked during the 10th week.

   a. Write an explicit formula for this arithmetic sequence.

   b. How far will the patient walk during the 10th week?

2. **Consider a sequence that follows -19, -16, -13, -10, ...**

   a. Write the recursive formula.

   b. Write the explicit formula.

   c. Find the 60^{th} term.

3. Which linear equation represents the data in the accompanying table?

1) $d = 1.50c$

2) $d = 1.50c + 20.00$

3) $d = 20.00c + 1.50$

4) $d = 21.50c$

c	d
0	20.00
1	21.50
2	23.00
3	24.50

4. If the pattern below continues, which equation(s) is a recursive formula that represents the number of squares in this sequence?

Design 1 Design 2 Design 3 Design 4

1) $y = 2x + 1$

2) $y = 2x + 3$

3) $a_1 = 3$

$a_n = a_{n-1} + 2$

4) $a_1 = 1$

$a_n = a_{n-1} + 2$

5. For the sequence $-27, -12, 3, 18, \ldots$, the expression that defines the nth term where $a_1 = -27$ is

1) $15 - 27n$

2) $15 - 27(n - 1)$

3) $-27 + 15n$

4) $-27 + 15(n - 1)$

6. Which function defines the sequence $-6, -10, -14, -18, \ldots$, where $f(6) = -26$?

1) $f(x) = -4x - 2$

2) $f(x) = 4x - 2$

3) $f(x) = -x + 32$

4) $f(x) = x - 26$