Name : _____ Score : _____

Teacher : _____ Date : _____

Arithmetic Sequences

Determine whether each sequence is arithmetic. If so, find the common difference.

1) 9, -16, -41, -66 ...

2) 25, 75, 125, 175 ...

3) 13, 8, 3, -2 ...

4) 29, -11, -51, -91 ...

Find the first four terms and stated term given the arithmetic sequence, with a_1 as the 1st term.

5) $a_n = 29 - 12n$, a_5

6) $a_n = 55 - 35n$, a_{17}

7) $a_n = 4 + 20n$, a_{18}

8) $a_n = 11 + 7n$, a_{18}

Given the first term and common difference, find the first four terms and the formula.

9) $a_1 = 16$, $d = -3$

10) $a_1 = 6$, $d = 4$

11) $a_1 = 26$, $d = 10$

12) $a_1 = 14$, $d = -100$

Name : _____ Score : _____

Teacher : _____ Date : _____

Arithmetic Sequences

Determine whether each sequence is arithmetic. If so, find the common difference.

1) 9, -16, -41, -66 ...

Common Difference : -25

2) 25, 75, 125, 175 ...

Common Difference : +50

3) 13, 8, 3, -2 ...

Common Difference : -5

4) 29, -11, -51, -91 ...

Common Difference : -40

Find the first four terms and stated term given the arithmetic sequence, with a_1 as the 1st term.

5) $a_n = 29 - 12n$, a_5

29, 17, 5, -7 ...

$a_5 = -31$

6) $a_n = 55 - 35n$, a_{17}

55, 20, -15, -50 ...

$a_{17} = -540$

7) $a_n = 4 + 20n$, a_{18}

4, 24, 44, 64 ...

$a_{18} = 364$

8) $a_n = 11 + 7n$, a_{18}

11, 18, 25, 32 ...

$a_{18} = 137$

Given the first term and common difference, find the first four terms and the formula.

9) $a_1 = 16$, $d = -3$

1st 4 Terms: 16, 13, 10, 7 ...

Formula: $a_n = 19 - 3n$

10) $a_1 = 6$, $d = 4$

1st 4 Terms: 6, 10, 14, 18 ...

Formula: $a_n = 2 + 4n$

11) $a_1 = 26$, $d = 10$

1st 4 Terms: 26, 36, 46, 56 ...

Formula: $a_n = 16 + 10n$

12) $a_1 = 14$, $d = -100$

1st 4 Terms: 14, -86, -186, -286 ...

Formula: $a_n = 114 - 100n$