Name : _____ Score : _____

Teacher : _____ Date : _____

Geometric Sequences

Determine whether each sequence is geometric. If so, find the common ratio.

1) 1.2, 2.4, 4.8, 9.6 ...

2) 4.2, 8.4, 16.8, 33.6 ...

3) 4, 12, 36, 108 ...

4) 1, 2, 4, 8 ...

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

5) $a_n = 3^{n-1}$, a_6

6) $a_n = 4 \bullet 6^{n-1}$, a_7

7) $a_n = 4.5 \bullet -5.0^{n-1}$, a_7

8) $a_n = 1.6 \bullet 4.0^{n-1}$, a_6

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

9) $a_1 = 3.5$, $r = 5.0$

10) $a_1 = 5$, $r = 2$

11) $a_1 = 5$, $r = -3$

12) $a_1 = 2.2$, $r = 3.0$

Name : _____ Score : _____

Teacher : _____ Date : _____

Geometric Sequences

Determine whether each sequence is geometric. If so, find the common ratio.

1) 1.2, 2.4, 4.8, 9.6 ...

Common Ratio: 2.0

2) 4.2, 8.4, 16.8, 33.6 ...

Common Ratio: 2.0

3) 4, 12, 36, 108 ...

Common Ratio: 3

4) 1, 2, 4, 8 ...

Common Ratio: 2

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

5) $a_n = 3^{n-1}$, a_6

1, 3, 9, 27 ...

$a_6 = 243$

6) $a_n = 4 \bullet 6^{n-1}$, a_7

4, 24, 144, 864 ...

$a_7 = 186624$

7) $a_n = 4.5 \bullet -5.0^{n-1}$, a_7

4.5, -22.5, 112.5, -562.5 ...

$a_7 = 70312.5$

8) $a_n = 1.6 \bullet 4.0^{n-1}$, a_6

1.6, 6.4, 25.6, 102.4 ...

$a_6 = 1638.4$

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

9) $a_1 = 3.5$, $r = 5.0$

1st 4 Terms: 3.5, 17.5, 87.5, 437.5 ...

Formula: $a_n = 3.5 \bullet 5.0^{n-1}$

10) $a_1 = 5$, $r = 2$

1st 4 Terms: 5, 10, 20, 40 ...

Formula: $a_n = 5 \bullet 2^{n-1}$

11) $a_1 = 5$, $r = -3$

1st 4 Terms: 5, -15, 45, -135 ...

Formula: $a_n = 5 \bullet -3^{n-1}$

12) $a_1 = 2.2$, $r = 3.0$

1st 4 Terms: 2.2, 6.6, 19.8, 59.4 ...

Formula: $a_n = 2.2 \bullet 3.0^{n-1}$