

Name : _____

Score : _____

Teacher : _____

Date : _____

Geometric Sequences

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

1) 1.3, 2.6, 5.2, 10.4 ...

2) 5, -30, 180, -1080 ...

3) 2, -10, 50, -250 ...

4) 1, -5, 25, -125 ...

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

5) $a_n = 1.1 \cdot -5.0^{n-1}$, a_6

6) $a_n = 3.1 \cdot -6.0^{n-1}$, a_6

7) $a_n = 2.2 \cdot -5.0^{n-1}$, a_6

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

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

9) $a_1 = 3.2$, $r = -6.0$

10) $a_1 = 3$, $r = -4$

11) $a_1 = 4$, $r = -2$

12) $a_1 = 4.2$, $r = 6.0$



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Geometric Sequences

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

1) 1.3, 2.6, 5.2, 10.4 ...

Common Ratio: 2.0

2) 5, -30, 180, -1080 ...

Common Ratio: -6

3) 2, -10, 50, -250 ...

Common Ratio: -5

4) 1, -5, 25, -125 ...

Common Ratio: -5

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

5) $a_n = 1.1 \cdot -5.0^{n-1}$, a_6

1.1, -5.5, 27.5, -137.5 ...

$a_6 = -3437.5$

6) $a_n = 3.1 \cdot -6.0^{n-1}$, a_6

3.1, -18.6, 111.6, -669.6 ...

$a_6 = -24105.6$

7) $a_n = 2.2 \cdot -5.0^{n-1}$, a_6

2.2, -11.0, 55.0, -275.0 ...

$a_6 = -6875.0$

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

5, 15, 45, 135 ...

$a_6 = 1215$

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

9) $a_1 = 3.2$, $r = -6.0$

1st 4 Terms: 3.2, -19.2, 115.2, -691.2 ...

Formula: $a_n = 3.2 \cdot -6.0^{n-1}$

10) $a_1 = 3$, $r = -4$

1st 4 Terms: 3, -12, 48, -192 ...

Formula: $a_n = 3 \cdot -4^{n-1}$

11) $a_1 = 4$, $r = -2$

1st 4 Terms: 4, -8, 16, -32 ...

Formula: $a_n = 4 \cdot -2^{n-1}$

12) $a_1 = 4.2$, $r = 6.0$

1st 4 Terms: 4.2, 25.2, 151.2, 907.2 ...

Formula: $a_n = 4.2 \cdot 6.0^{n-1}$

