

Name:

Date:

Period:

Determine if the sequence is arithmetic. If it is, find the common difference.

1) 35, 32, 29, 26, ...

2) -3, -23, -43, -63, ...

3) -34, -64, -94, -124, ...

4) -30, -40, -50, -60, ...

5) -7, -9, -11, -13, ...

6) 9, 14, 19, 24, ...

Given the explicit formula for an arithmetic sequence find the first five terms and the term named in the problem.

7) $a_n = -11 + 7n$, Find a_{34}

8) $a_n = 65 - 100n$, Find a_{39}

9) $a_n = -7.1 - 2.1n$, Find a_{27}

10) $a_n = \frac{11}{8} + \frac{1}{2}n$, Find a_{23}

Given the first term and the common difference of an arithmetic sequence find the first five terms and the explicit formula.

11) $a_1 = 28$, $d = 10$

12) $a_1 = -38$, $d = -100$

13) $a_1 = -34$, $d = -10$

14) $a_1 = 35$, $d = 4$

Determine if the sequence is geometric. If it is, find the common ratio.

1) -1, 6, -36, 216, ...

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

3) 4, 16, 36, 64, ...

4) -3, -15, -75, -375, ...

5) -2, -4, -8, -16, ...

6) 1, -5, 25, -125, ...

Given the explicit formula for a geometric sequence find the first five terms and the 8th term.

7) $a_n = 3^{n-1}$

8) $a_n = 2 \cdot \left(\frac{1}{4}\right)^{n-1}$

9) $a_n = -2.5 \cdot 4^{n-1}$

10) $a_n = -4 \cdot 3^{n-1}$

Given the recursive formula for a geometric sequence find the common ratio, the first five terms, and the explicit formula.

11) $a_n = a_{n-1} \cdot 2$
 $a_1 = 2$

12) $a_n = a_{n-1} \cdot -3$
 $a_1 = -3$

13) $a_n = a_{n-1} \cdot 5$
 $a_1 = 2$

14) $a_n = a_{n-1} \cdot 3$
 $a_1 = -3$