

Comparing Arithmetic and Geometric Sequences

Date _____ Period _____

For each sequence, state if it is arithmetic, geometric, or neither.

1) 1, 3, 6, 10, 15, ...

2) 40, 43, 46, 49, 52, ...

3) $4, \frac{13}{3}, \frac{14}{3}, 5, \frac{16}{3}, \dots$

4) -4, 12, -36, 108, -324, ...

5) 4, 16, 36, 64, 100, ...

6) -29, -34, -39, -44, -49, ...

7) 1, 5, 25, 125, 625, ...

8) 1, 4, 9, 16, 25, ...

For each sequence, state if it is arithmetic, geometric, or neither.

1) 3, 15, 75, 375, 1875, ...

2) -405, 135, -45, 15, -5, ...

3) -3, -6, -12, -24, -48, ...

4) $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}, \frac{1}{32}, \dots$

Find the common difference and the three terms in the sequence after the last one given.

5) -1, -31, -61, -91, ...

6) 9, -191, -391, -591, ...

7) -12, -18, -24, -30, ...

8) 35, 25, 15, 5, ...

Find the common ratio and the three terms in the sequence after the last one given.

9) -1, -5, -25, -125, ...

10) -4, 16, -64, 256, ...

11) 2, 6, 18, 54, ...

12) 2, 4, 8, 16, ...