

Algebra 1: 4.2 Warm Up
Arithmetic and Geometric Sequences

Name _____ Period _____

Determine if the sequence is arithmetic or geometric. Then, write the first 5 terms of each sequence.

1. The first term of the sequence is 8 and the common difference, d , is 12.
2. The first term of the sequence is -9 and the common ratio, r , is -2.
3. The first term of the sequence is 0 and the common difference, d , is -6.
4. The first term of the sequence is -3 and the common ratio, r , is $-\frac{1}{4}$.
5. The first term of the sequence is $7\frac{1}{2}$ and the common difference, d , is $\frac{1}{2}$.
6. The first term of sequence is 150 and the common ratio, r , is $\frac{1}{5}$.

Answer Key:

1. Arithmetic: 8, 20, 32, 44, 56

2. Geometric: -9, 18, -36, 72, -144

3. Arithmetic: 0, -6, -12, -18, -24

4. Geometric: $-3, \frac{3}{4}, -\frac{3}{16}, \frac{3}{64}, -\frac{3}{256}$

5. Arithmetic: $7\frac{1}{2}, 8, 8\frac{1}{2}, 9, 9\frac{1}{2}$

6. Geometric: 150, 30, 6, $\frac{6}{5}, \frac{6}{25}$