

Identify Geometric Sequences

Name in English

Determine whether each sequence is geometric. Write yes or no.

1. $-8, -5, -1, -4, , , , \dots$

a) Yes, with $r = 3$

b) Yes, with $d = 3$

c) No, it is not geometric.

2. $4, 12, 36, 108, . . .$

a) Yes, with $r = 3$

b) Yes, with $d = 8$

c) No, it is not geometric.

3. $27, 9, 3, \dots$

a) Yes, with $r = \frac{1}{3}$

b) Yes, with $d = \frac{1}{3}$

c) No, it is not geometric.

Find the next three terms of each geometric sequence.

4. $8, 12, 18, 27,$

5. $8, 16, 32, 64,$

Classify Sequences

Determine whether each sequence is arithmetic, geometric, or neither. Explain

6. 5, 7, 1, 3, 9, ...

- a) Geometric, with $r = -4$
- b) Arithmetic, with $d = -4$
- c) Neither

7. 200, -100 , 50, -25 , ...

- a) Geometric, with $r = -\frac{1}{2}$
- b) Arithmetic, with $d = 100$
- c) Neither

8. 12, 16, 20, 24, ...

- a) Geometric, with $r = 4$
- b) Arithmetic, with $d = 4$
- c) Neither