

Sequences: Arithmetic vs. Geometric

Directions: For each sequence, answer the questions that follow.

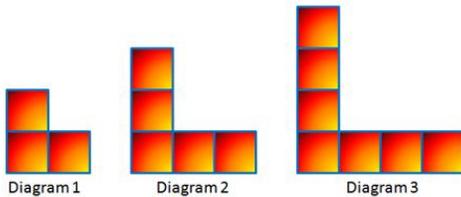
1. 45, 90, 180, 360, _____, _____, _____, ...

- a) Complete the sequence
- b) Is this arithmetic or geometric? _____
- c) Does it have a common difference or common ratio? _____
- d) If there is a common difference or ratio, what is it? _____
- e) If the sequence is arithmetic, what is the formula (equation)? _____

2. 11, 9, 7, 5, _____, _____, _____, ...

- a) Complete the sequence
- b) Is this arithmetic or geometric? _____
- c) Does it have a common difference or common ratio? _____
- d) If there is a common difference or ratio, what is it? _____
- e) If the sequence is arithmetic, what is the formula (equation)? _____

3.



- a) Complete the sequence
- b) Is this arithmetic or geometric? _____
- c) Does it have a common difference or common ratio? _____
- d) If there is a common difference or ratio, what is it? _____
- e) If the sequence is arithmetic, what is the formula (equation)? _____

4.



- a) This shows how infections spread. How many people would be in the next row? _____
- b) Is this arithmetic or geometric? _____
- c) Does it have a common difference or common ratio? _____
- d) If there is a common difference or ratio, what is it? _____
- e) If the sequence is arithmetic, what is the formula (equation)? _____

5.

Term	Number
1	1
2	6
3	36
4	216

- What is the number for term 5? _____
- Is this arithmetic or geometric? _____
- Does it have a common difference or common ratio? _____
- If there is a common difference or ratio, what is it? _____
- If the sequence is arithmetic, what is the formula (equation)? _____

6.

Term	Number
1	-10
2	-7
3	-4
4	-1

- What is the number for term 5? _____
- Is this arithmetic or geometric? _____
- Does it have a common difference or common ratio? _____
- If there is a common difference or ratio, what is it? _____
- If the sequence is arithmetic, what is the formula (equation)? _____

7. The value of a comic book starts at \$3. When the series is no longer published, the value of the comic doubles every year.

- How much would the comic book be worth after 5 years? _____
- Is this arithmetic or geometric? _____
- Does it have a common difference or common ratio? _____
- If there is a common difference or ratio, what is it? _____
- If the sequence is arithmetic, what is the formula (equation)? _____

8. Shanna starts a bank account with \$50 and deposits \$15 every week.

- How much does Shanna have after 2 months (8 weeks)? _____
- Is this arithmetic or geometric? _____
- Does it have a common difference or common ratio? _____
- If there is a common difference or ratio, what is it? _____
- If the sequence is arithmetic, what is the formula (equation)? _____