***How can you tell if a sequence is Arithmetic or Geometric?*** You must figure out if the group of terms has a common difference (arithmetic sequence) or a common ratio (geometric sequence). Circle your answers to each question.

1) **10, 20, 40, 80, …**

1. Does it have a common difference or a common ratio?
2. Arithmetic or Geometric?
3. Find the next term: \_\_\_\_\_\_\_\_\_\_\_\_
4. Write the explicit rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Find the 8th term: \_\_\_\_\_\_\_\_\_\_\_\_\_

2) **40, 200, 1000, 5000, …**

1. Does it have a common difference or a common ratio?
2. Arithmetic or Geometric?
3. Find the next term: \_\_\_\_\_\_\_\_\_\_\_\_
4. Write the explicit rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Find the 6th term: \_\_\_\_\_\_\_\_\_\_\_\_\_

3) **9, 10, 11, 12, …**

1. Does it have a common difference or a common ratio?
2. Arithmetic or Geometric?
3. Find the next term: \_\_\_\_\_\_\_\_\_\_\_\_
4. Write the explicit rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Find the 20th term: \_\_\_\_\_\_\_\_\_\_\_\_\_

4) **16, 64, 256, 1024, …**

1. Does it have a common difference or a common ratio?
2. Arithmetic or Geometric?
3. Find the next term: \_\_\_\_\_\_\_\_\_\_\_\_
4. Write the explicit rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Find the 10th term: \_\_\_\_\_\_\_\_\_\_\_\_\_

5) **-2, -5, -8, -11, …**

1. Does it have a common difference or a common ratio?
2. Arithmetic or Geometric?
3. Find the next term: \_\_\_\_\_\_\_\_\_\_\_\_
4. Write the explicit rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Find the 13th term: \_\_\_\_\_\_\_\_\_\_\_\_\_

6) **6, 10, 14, 18, …**

1. Does it have a common difference or a common ratio?
2. Arithmetic or Geometric?
3. Find the next term: \_\_\_\_\_\_\_\_\_\_\_\_
4. Write the explicit rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Find the 25th term: \_\_\_\_\_\_\_\_\_\_\_\_\_

7) **8, 3, -2, -7, …**

1. Does it have a common difference or a common ratio?
2. Arithmetic or Geometric?
3. Find the next term: \_\_\_\_\_\_\_\_\_\_\_\_
4. Write the explicit rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Find the 50th term: \_\_\_\_\_\_\_\_\_\_\_\_\_