Name _____ Date _____

6.5 Practice A

In Exercises 1–3, find the common ratio of the geometric sequence.

1. 2, 6, 18, 54, …

2. 135, 45, 15, 5, …

3. 7, −14, 28, −56, …

In Exercises 4–6, determine whether the sequence is *arithmetic*, *geometric*, or *neither*. Explain your reasoning.

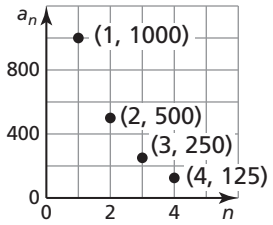
4. 1, 4, 9, 16, …

5. 12, 17, 22, 27, …

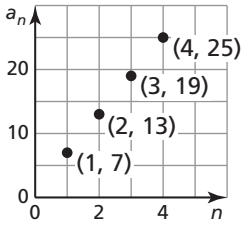
6. 4, −12, 36, −108, …

In Exercises 7 and 8, determine whether the graph represents an *arithmetic sequence*, a *geometric sequence*, or *neither*. Explain your reasoning.

7.



8.



In Exercises 9 and 10, write the next three terms of the geometric sequence. Then graph the sequence.

9. 3, 15, 75, 375, …

10. 1024, −256, 64, −16, …

In Exercises 11–14, write an equation for the *n*th term of the geometric sequence. Then find a_6.

11. 3, 6, 12, 24, …

12. 0.375, 3, 24, 192, …

13.

n	1	2	3	4
a_n	0.0124	1.24	124	12,400

14.

n	1	2	3	4
a_n	−1024	128	−16	2

15. A digital city map displays an area of 544 square units. After you zoom in once, the area is 272 square units. After you zoom in a second time, the area is 136 square units. What is the area after you zoom in five times?

16. What is the 8th term of the geometric sequence where $a_2 = 20$ and $r = 5$?