Name_____ Date_____Period_____

Algebra I, 4.6 Geometric Sequences Day 1

Determine whether the sequence is a geometric sequence. Explain.

1. 4, 12, 36, 108, …

2. 6, 9, 12, 15, …

3. 0.1, 0.5, 2.5, 12.5, …

4. 40, 10, $\frac{5}{2}, \frac{5}{8}$, …

5. 1, –4, 16, –64, …

6. 25, 35, 45, 55, …

Find the common ratio for each geometric sequence.

7. 1, 6, 36, 216, …

8. 10, 100, 1000, 10,000, …

9. –2, 4, –8, 16, …

10. 9, 27, 81, 243, …

11. 128, 64, 32, 16, …

12. –3, –6, –12, –24, …

13. 2, –6, 18, –54, …

14. 7, 56, 448, 3584, …

Write the explicit formula for each geometric sequence.

15. 5, 15, 45, 135, …

16. –2, –12, –72, –432, …

17. 500, 100, 20, 4, …

18. 75, 15, 3, $\frac{3}{5}$, …

19. 45, 90, 180, 360, …

20. 2, 2, 2, 2, …

Write the explicit formula and find the 7th term in each sequence.

21. 5, –20, 80, –320, …

22. 7, 14, 28, 56, …

23. 1024, 512, 256, 128, …

24. 45, –135, 405, –1215, …