

Practice 11-3 (B) Do evens only

Geometric Sequences

Find the missing term of each geometric sequence.

1. $4, \frac{8}{3}, 16, \dots$

2. $9, \frac{9}{4}, 16, \dots$

3. $2, \frac{8}{3}, 8, \dots$

4. $3, \frac{3}{2}, 12, \dots$

5. $2, \frac{2}{5}, 50, \dots$

6. $4, \frac{4}{5}, 5.76, \dots$

Is the given sequence geometric? If so, identify the common ratio and find the next two terms.

7. $3, 9, 27, 81, \dots$

8. $4, 8, 16, 32, \dots$

9. $4, 8, 12, 16, \dots$

10. $4, -8, 16, -32, \dots$

11. $1, 0.5, 0.25, 0.125, \dots$

12. $100, 30, 9, 2.7, \dots$

13. $-5, 0, 5, 10, \dots$

14. $64, -32, 16, -8, \dots$

15. $1, 4, 9, 16, \dots$

Identify each sequence as *arithmetic*, *geometric*, or *neither*. Then find the next two terms.

16. $9, 3, 1, \frac{1}{3}, \dots$

17. $1, 0, -2, -5, \dots$

18. $2, -2, 2, -2, \dots$

19. $-3, 2, 7, 12, \dots$

20. $1, -2, -5, -8, \dots$

21. $1, -2, 3, -4, \dots$

Write the explicit formula for each sequence. Then generate the first five terms.

22. $a_1 = 3, r = -2$

23. $a_1 = 5, r = 3$

24. $a_1 = -1, r = 4$

25. $a_1 = -2, r = -3$

26. $a_1 = 32, r = -0.5$

27. $a_1 = 2187, r = \frac{1}{3}$

28. $a_1 = 9, r = 2$

29. $a_1 = -4, r = 4$

30. $a_1 = 0.1, r = -2$