

L8.3 Geometric Sequences

Pg 430 #5, 7, 11-19 odd, 23-29, 41, 43, 45

5. geometric; The common ratio is $\frac{1}{2}$.

7. not geometric; The ratios are not constant.

11. geometric; The common ratio is $\frac{1}{3}$.

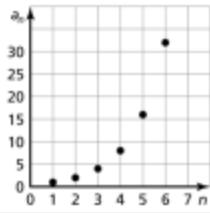
13. a. $a_n = -3(5)^{n-1}$
 b. $a_n = 72\left(\frac{1}{3}\right)^{n-1}$

15. $a_n = 4(5)^{n-1}$; $a_7 = 62,500$

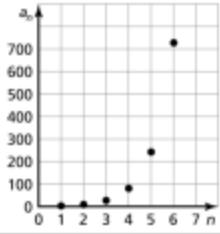
17. $a_n = 112\left(\frac{1}{2}\right)^{n-1}$; $a_7 = \frac{7}{4}$

19. $a_n = 4\left(\frac{3}{2}\right)^{n-1}$; $a_7 = \frac{729}{16}$

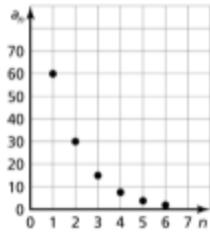
23. $a_n = 2^{n-1}$



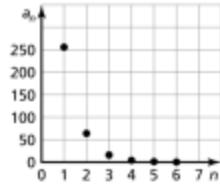
24. $a_n = 3^n$



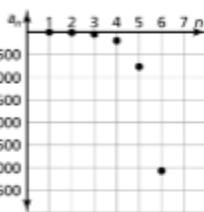
25. $a_n = 60\left(\frac{1}{2}\right)^{n-1}$



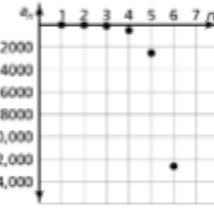
26. $a_n = 256\left(\frac{1}{4}\right)^{n-1}$



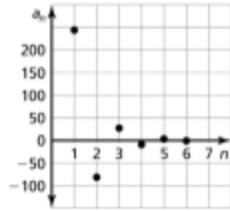
27. $a_n = -3(4)^{n-1}$



28. $a_n = -4(5)^{n-1}$



29. $a_n = 243\left(-\frac{1}{3}\right)^{n-1}$



41. $a_n = 4(2)^{n-1}$

43. $a_n = 5\left(\frac{1}{2}\right)^{n-1}$

45. $a_n = 6(-2)^{n-1}$