

Recursive Formulas for Geometric Sequences

A) Write the geometric sequence using the recursive formula.

1) $a_n = a_{n-1} \cdot \sqrt{2}$; $a_1 = 1.8$

2) $a_n = a_{n-1} \cdot \frac{1}{6}$; $a_1 = -\frac{5}{6}$

3) $a_n = a_{n-1} \cdot -7$; $a_1 = -12$

4) $a_n = a_{n-1} \cdot 0.2$; $a_1 = 100$

5) $a_n = a_{n-1} \cdot -5$; $a_1 = 4$

6) $a_n = a_{n-1} \cdot 25$; $a_1 = 2$

B) Write the recursive formula of each geometric sequence.

1) 9, 72, 576, 4608, 36864, ...

2) -3, 2.1, -1.47, 1.029, -0.7203, ...

3) -11, -176, -2816, -45056, ...

4) $\frac{7}{2}, -\frac{1}{2}, \frac{1}{14}, -\frac{1}{98}, \frac{1}{686}, \dots$
