Answer Key · Lesson 7.6: Geometric Sequences

School Launch · Algebra I · Unit 7 · Worksheet A · for the parent

Key

1. 243

Find the 5th term of the geometric sequence $3, 9, 27, 81, \ldots$

2. 96

Find the 5th term of the geometric sequence $6, 12, 24, 48, \ldots$

3. 16

Find the 5th term of the geometric sequence $1, 2, 4, 8, \ldots$

4. $\frac{3}{2}$

1. Common ratio r = second term ÷ first term.
2. $a_n = a_1 r^{n-1}$ with $n = 7$.

Find the 7th term of the geometric sequence $96, 48, 24, 12, \ldots$

5. -2187

1. Common ratio r = second term ÷ first term.
2. $a_n = a_1 r^{n-1}$ with $n = 8$.

Find the 8th term of the geometric sequence $-1, -3, -9, -27, \ldots$

6. -64

1. Common ratio r = second term ÷ first term.
2. $a_n = a_1 r^{n-1}$ with $n = 6$.

Find the 6th term of the geometric sequence $2, -4, 8, -16, \ldots$

7. -729

1. Common ratio r = second term ÷ first term.
2. $a_n = a_1 r^{n-1}$ with $n = 6$.

Find the 6th term of the geometric sequence $-3, -9, -27, -81, \ldots$

8. 118098

1. Common ratio r = second term ÷ first term.
2. $a_n = a_1 r^{n-1}$ with $n = 10$.

Find the 10th term of the geometric sequence $6, 18, 54, 162, \ldots$

9. -8748

1. Common ratio r = second term ÷ first term.
2. $a_n = a_1 r^{n-1}$ with $n = 8$.

Find the 8th term of the geometric sequence $-4, -12, -36, -108, \ldots$

10. 32805

1. Common ratio r = second term ÷ first term.
2. $a_n = a_1 r^{n-1}$ with $n = 9$.

Find the 9th term of the geometric sequence $5, 15, 45, 135, \ldots$