

Additional Practice

Find the next three terms in each geometric sequence.

1. $-5, -10, -20, -40, \dots$

2. $7, 56, 448, 3584, \dots$

3. $-10, 40, -160, 640, \dots$

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

5. The first term of a geometric sequence is 6 and the common ratio is -8 . Find the 7th term.

6. The first term of a geometric sequence is -3 and the common ratio is $\frac{1}{2}$. Find the 6th term.

7. The first term of a geometric sequence is -0.25 and the common ratio is -3 . Find the 10th term.

8. What is the 12th term of the geometric sequence $-4, -12, -36, \dots$?

9. What is the 10th term of the geometric sequence $2, -6, 18, \dots$?

10. What is the 6th term of the geometric sequence $50, 10, 2, \dots$?

11. A shoe store is discounting shoes each month. A pair of shoes cost \$80. The table shows the discount prices for several months. Find the cost of the shoes after 8 months. Round your answer to the nearest cent.

Month	Price
1	\$80.00
2	\$72.00
3	\$64.80

Problem Solving

Write the correct answer.

1. A ball is dropped from 400 feet. The table shows the height of each bounce.

Bounce	Height (ft)
1	280
2	196
3	137.2

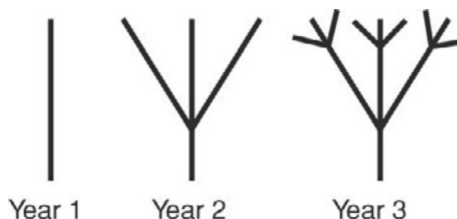
Find the height of the ball on the 6th bounce. Round your answer to the nearest tenth of a foot.

3. Jeanette started selling bagels to offices in her area. Her sales for the first 3 months are shown in the table.

Month	Sales (\$)
1	\$200.00
2	\$230.00
3	\$264.50

If this trend continues, find the amount of Jeanette's sales in Month 8.

2. A plant starts with 1 branch. Every year, each branch becomes 3 branches. A sketch of the plant for the first 3 years is shown. How many branches will the plant have in year 10?



How many branches would the plant have in year 10 if the plant had 5 branches the first year? (Each branch still becomes 3 branches every year.)

The table shows the number of houses in a new subdivision. Use the table to answer questions 4–7. Select the best answer.

Month	Houses
1	3
2	6
3	12
4	24

4. The number of houses forms a geometric sequence. What is r ?
- A 0.5 C 3
B 2 D 6
5. Assuming that the trend continues, how many houses would be in the subdivision in Month 6?
- F 36 H 60
G 48 J 96
6. Management decides the subdivision is complete when the number of houses reaches 48. When will this happen?
- A Month 5 C Month 7
B Month 6 D Month 8
7. Suppose the number of houses tripled every month. How many more houses would be in the subdivision in Month 4? (The number of houses in Month 1 is still 3.)
- F 48 H 72
G 57 J 81