

1. Howard buys a baseball card worth \$100. The card increases in value by 5% every year.
 - a. Find the first 4 terms of a sequence showing the value of the card at the start and for the following 3 years.
 - b. Write a recursive formula for the sequence.
 - c. Write an explicit formula for the sequence.

2. Gretchen buys a computer for \$1200. A computer loses one-sixth of its value each year.
 - a. Find the first 4 terms of a sequence showing the value of the computer at the start and for the following 3 years.
 - b. Write a recursive formula for the sequence.
 - c. Write an explicit formula for the sequence.

3. The Friendly Group started with 64 members and its membership increased by three-fourths each year.
 - a. Find the first 4 terms of a sequence for this scenario.
 - b. Write a recursive formula for the sequence.
 - c. Write an explicit formula for the sequence.

4. A Dotendin video game system costs \$189 new and loses 12% of its value each year.
 - a. Find the first 4 terms of a sequence for this scenario.
 - b. Write a recursive formula for the sequence.
 - c. Write an explicit formula for the sequence.

Write an explicit formula for 5 and 6, then solve.

5. Suppose the price of an HD television is decreasing 4.7% a year. If a certain television currently costs \$850, how much will it cost in 12 years?

6. Suppose the price of cereal is increasing 5.8% a year. If a certain box of cereal costs \$4.15, how much will the cereal cost in 10 years?

Find the missing terms for each geometric sequence.

7. 3, 6, ____, ____, 48, ...
8. ____, ____, 18, 6, 2, $\frac{2}{3}$, ...
9. 3072, 768, ____, ____, 12, ...

10. 1215, ____, ____, 360, 240, ...
11. ____, ____, $\frac{2}{3}$, $\frac{4}{9}$, $\frac{8}{27}$, ...
12. $\frac{1}{8}$, $\frac{1}{4}$, ____, ____, 2, ...

13. ____, ____, ____, 1, 3, 9, ...
14. ____, ____, ____, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, ...