

Section 9.3 Geometric Sequences

geometric sequence: starting value a
and common ratio r

$$a, ar, ar^2, ar^3, \dots$$

recursive definition:

explicit definition:

Problem 1:

Is the sequence geometric? If it is, what are a and r ?

a. 5, 10, 50, ...

b. -10, 6, -3.6, ...

Problem 2:

What are the second and third terms of the geometric sequence 2, ____, ____, 128?

Problem 3:

You work as a store manager and need to clear some inventory. You decide to discount each item by 30% of the previous week's price until the entire inventory is sold. The original price of one item is \$60. What will be the cost of the item during the fifth week of the sale?

Problem 4:

What are the possible values of the missing term of the geometric sequence 28, ____, 7?