Name: _____ Date: _____ Row: _____ Period: _____

NOTES SECTION 11.3: GEOMETRIC SEQUENCES AND SERIES

GEOMETRIC SEQUENCE

In a geometric sequence, the ratio of any term to the previous term is _____.

The constant ratio is called the _____ and is denoted by _____.

EXAMPLE 1

Is the sequence geometric?

a)	b)

RULE FOR A GEOMETRIC SEQUENCE

The nth term of a geometric sequence with first term a_1 and common ratio r is

EXAMPLE 2

Consider the sequence _____

a) Write a rule for the nth term of the sequence	b) Find _____

EXAMPLE 3

One term of a geometric sequence is _____. The common ratio is _____.

a) Write a rule for the nth term.	b) Graph the sequence

YOUR TURN

One term of a geometric sequence is _____. The common ratio is _____.

a) Write a rule for the nth term of the sequence	b) Find _____

EXAMPLE 4

Two terms of a geometric sequence are _____ and _____.
Write a rule for the nth term.

YOUR TURN

Two terms of a geometric sequence are _____ and _____.
Write a rule for the nth term.

GEOMETRIC SERIES

The expression formed by _____ the terms of a geometric sequence is called a geometric _____.

The sum of the first *n* terms is denoted by _____.

EXAMPLE 1

Consider the geometric series _____.

a) Find the sum of the first _____ terms.

b) Find n such that $S_n =$

YOUR TURN

Consider the geometric series _____.

a) Find the sum of the first _____ terms.	b) Find n such that S_n =