Algebra II

11-3

Geometric Sequences

Geometric Sequence -

Example of an Geometric Sequence -

5	10	20	40	80	...	1280
a_1	a_2	a_3	a_4	a_5		a_n

Formula for finding the n^{th} term of an Arithmetic Sequence -

$a_n =$

Find a formula for the n^{th} term of each geometric sequence.

1) 2, 6, 18, 54, . . .

Find the specified term of each geometric sequence.

9) 320, 80, 20, 5, . . . ; a_8

Find the geometric mean of each pair of numbers.

19) 2,8

Insert the given number of geometric means between each pair.

23) Three; 5, 80

Tell whether each sequence is arithmetic or geometric. Then find a formula for the n^{th} term.

29) 25, 33, 41, 49, . . .

Find a formula for the n^{th} term of each sequence. The sequences are neither arithmetic nor geometric.

37) $\frac{2}{1}, \frac{3}{4}, \frac{4}{9}, \frac{5}{16}, \ldots$

Assignment:
pg 513
2 - 38 even