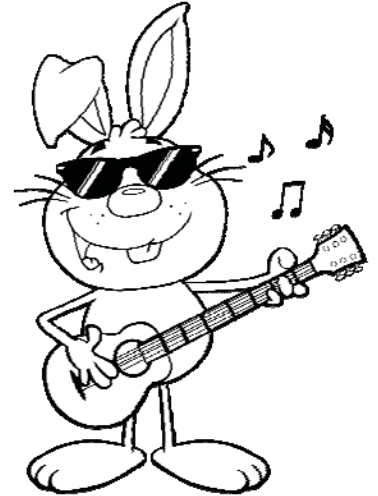Name _____   Date _____

Variable Expressions and Sequences - Guided Lesson

Complete the following problems:

1) The sequence 35, 70, 105… looks like 1, 2, 3…except each term is 35 times as large. So, the formula is 35n, where n represents the position of a term in the sequence. Check the first three terms.

2) The formula for the nth term of a geometric sequence is

$$a_n = a_1 r^{n-1}$$

Where a_n is the nth term, a_1 is the first term, r is the common ratio, and n is the position of a term in the sequence 2, 4, 8, 16…

Solve for a_1 and r.

3) Find the first three terms of the sequence defined below, where n represents the position of a term in the sequence. Start with n = 3.

$$7(3)^n$$