

Read each question carefully and be sure to SHOW ALL WORK. Correct answer without proper justification will not receive a “Complete” grade. Pac fat! Good luck!

Name: _____

LO 5. Vectors and Sequences Challenge. I can work with vectors and sequences creatively in new situations that require a deep understanding of them.

Criteria for Success: I can solve conceptual questions related to vectors that lie on the top half of Bloom’s Taxonomy (analyze, evaluate, and create).

Question: Create three sequences (not series) as required in each of the following parts. Describe each of these sequences using two of the following methods:

- (1) listing numbers and describing the pattern they form,
- (2) graphing first few terms and describing the pattern they form,
- (3) using an exact formula,
- (4) using a recurrence relation.

Make sure to use each of the four methods above at least once.

(a) Arithmetic such that all its terms are negative.

(b) Alternating and not bounded.

(c) Not arithmetic, not geometric, but monotonic.