

No books or notes allowed. No laptop, graphic calculator or wireless devices allowed. Write clearly.

Name: _____

1. (10 points) Consider the two sequences of real numbers

$$a_n = \frac{n^2 - 1}{n} \qquad b_n = \frac{n + 1}{n^2}$$

Answer the questions in the following table

	a_n	b_n
Increasing/decreasing	Increasing	Decreasing
Bounded/Unbounded	Unbounded	Bounded
Lub if it exists	Not existent	$b_1 = 2$
Glb if it exists	$a_1 = 0$	0
Limit if it exists	Not existent	0