



Bilkent University

Quiz # 01  
Math 102 Section 08 Calculus II  
12 February 2024 Monday  
Instructor: Ali Sinan Sertöz



Name & Lastname: .....

Department: .....

Student ID: .....

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**Q-1)**

(a) Does the series  $\sum_{n=1}^{\infty} \frac{1}{n^{1/n}}$  converge or diverge? If it converges find its sum.

(b) Does the series  $\sum_{n=2}^{\infty} \frac{1}{n^2 - 1}$  converge or diverge? If it converges find its sum.

(c) Does the sequence  $\left(\frac{n}{n+1}\right)^n$  converge or diverge? If it converges find its limit.

Show your work in detail. Correct answers with no justification will not get any credit.

Grading: 2+5+3=10 points

**Solution:** (Grader: melis.gezer@bilkent.edu.tr)