

MATH 102-13 (112)
QUIZ # 5

NAME: ID. #:

Q1. Find the general term of the following sequence then show that it is convergent:

$$\left(1 - \frac{1}{2}\right), \left(\frac{1}{2} - \frac{1}{3}\right), \left(\frac{1}{3} - \frac{1}{4}\right), \left(\frac{1}{4} - \frac{1}{5}\right), \dots$$

Q2. Find

$$\lim_{n \rightarrow \infty} \frac{\ln n}{n}$$

(state any Rule or Theorem you use and justify your steps)