

QUIZ 10

Time: 15min

1. Does the series

$$1 + \frac{1}{2} + \frac{1}{2 \times 3} + \frac{1}{2 \times 3 \times 4} + \dots$$

converge? Justify your answer.

2. Does $\sum_{i=1}^{\infty} \left(\frac{\pi}{e}\right)^n$ converge? Why?

Bonus (5 pts). Is it true that

$$0.99999\dots = 1 ?$$

Why?