

# Alternating Series Test



## Question

Let  $s$  be the sum of the alternating series

$$s = \sum_{k=1}^{\infty} \frac{(-1)^{k+1}}{k} = 1 - \frac{1}{2} + \frac{1}{3} - \frac{1}{4} + \dots$$

Which region of the number line does the number  $s$  belong to?

