

## HARMONIC SERIES

## Why

1

## **Definition**

The harmonic series is the series of the sequence  $x_n = 1/n$  for all n.

**Proposition 1.** The harmonic series diverges. In particular  $\sum_{k=1}^{\infty} a_k = \infty$ .

<sup>&</sup>lt;sup>1</sup>Future editions will include.

 $<sup>^2\</sup>mathrm{Future}$  editions will include a prerequisite sheet about limits to infinity.

