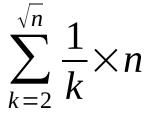
By using the Infinite/Harmonic series(partial) we prove if n is prime and show factors if n is not prime at the same time ; without trial division or modulo.



n is prime iff all terms are not integers. If a term is equal to an integer means that k and "the term" is a factor of n.

The upper limit is set to \sqrt{n} because we continue the series/sequence while each term is $\log_k(n) \ge 2$.