Mathematics Knowledge Base

neilfvhv

October 21, 2016

1 Number Theory

1.1 Fundamental theorem of arithmetic

Any integer $a > 1$ can be factored in a unique way as

$$a = p_1^{a_1} \times p_2^{a_2} \times \cdots \times p_t^{a_t}$$

where $p_1 < p_2 < \ldots < p_t$ are prime numbers and where each a_i is a positive integer.

2 Complex Analysis

2.1 Euler's formula

For any real number x:

$$e^{ix} = \cos x + i \sin x$$

where e is the base of the natural logarithm, i is the imaginary unit.