# Formulas

## Catalan Numbers

## Heron’s formula

, **where**

## Law of cosine

## Law of sine

## Newton Raphson

## Series: Arithmetic

## Series: Geometric

If |r| < 1

## Simpson’s Rule

## Stirling’s approximation

## Sum of Powers

## Fermat’s little theorem

where p is prime

where p is prime and a is not divisible by p

## Euler’s totient function

where p is prime

## Euler’s theorem

where gcd(a, n) = 1