

Finite Geometric Series

Finite Geometric Series: the indicated sum of the terms of a geometric sequence

If the last term a_n is not given, use

$$S_n = \frac{a_1(1 - r^n)}{1 - r}, \quad r \neq 1$$

If the last term a_n is given, use

$$S_n = \frac{a_1 - a_n r}{1 - r}, \quad r \neq 1$$