Geometric Sequence

A sequence is **geometric if there is a number r, called the common raio, such that**

$$\frac{a_{n+1}}{a_n} = r \quad \text{or} \quad a_{n+1} = a_n r \qquad \text{for any integer } n \geq 1$$

A sequence $a_0, a_1, a_2, \ldots$ is called a **geometric sequence** if, and only if, there is a constant r such that

$$a_k = r a_{k-1} \quad \text{for all integers } k \geq 1$$

It follows that,

$$a_n = a_0 r'' \quad \text{for all integers } n \geq 0$$