

LINEAR GROWTH

If a quantity starts at size P_0 and grows by d every time period, then the quantity after n time periods can be determined using either of these relations:

Recursive form

$$P_n = P_{n-1} + d$$

Explicit form

$$P_n = P_0 + d \cdot n$$

In this equation, d represents the common difference – the amount that the population changes each time n increases by 1.