

Arithmetic and Geometric Sequences Notes

Important Information

Term Number- n (the input)

In a sequence the input is always whole positive numbers.

Value of Each Term- $t(n)$ (the output)...the output can be negatives or fractions/decimals

n	$t(n)$
1	
2	
3	

Arithmetic Sequence- when a sequence adds a constant to each previous term. ✓

Common Difference- the value that is added in an arithmetic sequence.

Explicit/Standard Equation:

$$t(n) = mn + b$$

Common difference

zeroth term

A sequence always starts with the first term (which is $n=1$).

The zeroth term (initial value/starting point) will be used for $t(0)$. This number is **NOT** listed as part of a sequence.

Geometric Sequence- when a sequence multiplies a constant to each previous term.

Multiplier- the value that is multiplied in an geometric sequence.

Explicit/Standard Equation:

$$t(n) = ab^n$$

zeroth term

multiplier

