

Arithmetic Sequences

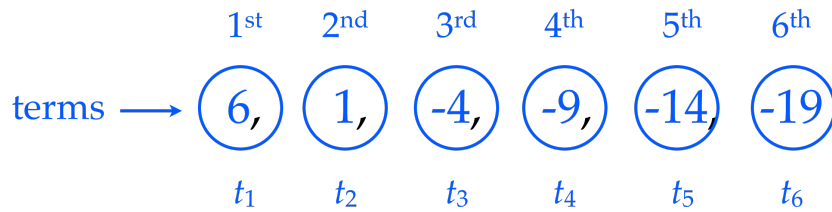
An **Arithmetic Sequence** is a **sequence** of successive **terms** that differ by the same number, d , called the **common difference**.

1, 5, 9, 13, 17, 21

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6, 1, -4, -9, -14, -19

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common difference

$$d = t_n - t_{n-1}$$

Let $n = 4$, find d

The n^{th} term of an **Arithmetic Sequence**

$$t_n = t_1 + (n - 1) \cdot d$$

If $t_1 = 24$, and $d = 3$

Find t_5 and t_7

Find the 10th term of the arithmetic sequence with $t_5 = -4$ and $t_8 = -16$.

Arithmetic means are the terms between two nonconsecutive terms of an arithmetic sequence.

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The four arithmetic means between 1 and 21 are 5, 9, 13, and 17.

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Find the four arithmetic means between 14 and -1