등차수열의 합 (Sum of Arithmetic Sequence)



등차수열의 합 S<sub>n</sub>:

등차수열의 합  $S_n$ : 등차수열의

# 등차수열의 합

 $S_n$ : 등차수열의 첫째항부터

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• 
$$a_1 = a$$
,

# 등차수열의 합

• 
$$a_1 = a, a_n = l$$

# 등차수열의 합

 $S_n$ : 등차수열의 첫째항부터 제n항까지의 합

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$$a_1 = a, a_n = l$$
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$$a_1 = a, a_n = l \supseteq \mathbb{H}, S_n = \frac{n(a+l)}{2}$$

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$$a_1 = a, d = a_2 - a_1$$

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$$2S_n = a_n$$

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$$S_n =$$



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• 
$$a_1 = a, d = a_2 - a_1 \supseteq \mathbb{H}, S_n = \frac{n\{2a + (n-1)d\}}{2}$$

$$\begin{array}{l} 1+2+3+4+5+6+7+8 \\ 8+7+6+5+4+3+2+1 \\ 9+9+9+9+9+9+9+9+9+9+9 \\ S_n = a_1 + a_2 + \cdots + a_{n-1} + a_n \\ S_n = a + (a+d) + \cdots + (l-d) + l \\ S_n = a_n + a_{n-1} + \cdots + a_2 + a_1 \\ S_n = l + (l-d) + \cdots + (a+d) + a \\ 2S_n = (a+l) + (a+l) + \cdots + (a+l) + (a+l) = n(a+l) \end{array}$$

$$S_n = \frac{n(a+l)}{2} =$$



• 
$$a_1 = a, a_n = l$$
 일 때,  $S_n = \frac{n(a+l)}{2}$ 

• 
$$a_1 = a, d = a_2 - a_1 \supseteq \mathbb{H}, S_n = \frac{n\{2a + (n-1)d\}}{2}$$

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$$S_n = \frac{n(a+l)}{2} = \frac{n[a+\{a+(n-1)d\}]}{2} =$$

• 
$$a_1 = a, a_n = l$$
 일 때,  $S_n = \frac{n(a+l)}{2}$ 

• 
$$a_1 = a, d = a_2 - a_1 \stackrel{\text{def}}{=} \mathbb{H}, S_n = \frac{n\{2a + (n-1)d\}}{2}$$

$$\begin{array}{l} 1+2+3+4+5+6+7+8 \\ 8+7+6+5+4+3+2+1 \\ 9+9+9+9+9+9+9+9+9+9+9 \\ S_n = a_1 + a_2 + \cdots + a_{n-1} + a_n \\ S_n = a + (a+d) + \cdots + (l-d) + l \\ S_n = a_n + a_{n-1} + \cdots + a_2 + a_1 \\ S_n = (a+l) + (l-d) + \cdots + (a+d) + a \\ 2S_n = (a+l) + (a+l) + \cdots + (a+l) + (a+l) = n(a+l) \end{array}$$

$$S_n = \frac{n(a+l)}{2} = \frac{n[a+\{a+(n-1)d\}]}{2} = \frac{n\{2a+(n-1)d\}}{2}$$

• 
$$a_1 = a, a_n = l \supseteq \mathbb{H}, S_n = \frac{n(a+l)}{2}$$

• 
$$a_1 = a, d = a_2 - a_1 \supseteq \mathbb{H}, S_n = \frac{n\{2a + (n-1)d\}}{2}$$

$$S_n = \frac{n(a+l)}{2} = \frac{n[a+\{a+(n-1)d\}]}{2} = \frac{n\{2a+(n-1)d\}}{2}$$

#### Github:

https://min7014.github.io/math20200629002.html

Click or paste URL into the URL search bar, and you can see a picture moving.