

Name:

Barisan & Deret Aritmetika Geometri

Exercise 3

1. Diketahui barisan aritmetika 2, 5, 8, 11, Tentukan:
- Suku ke- 50
 - Jumlah 50 suku pertama

Jawab:

Diketahui: $a = \dots\dots\dots$

$b = \dots\dots\dots$

$n = \dots\dots\dots$

Ditanya : $U_{\dots\dots}$

Penyelesaian:

a.

$$U_n = a + (n - 1) \times b$$
$$U_{\dots\dots} = \dots\dots + (\dots\dots - 1) \times \dots\dots$$
$$U_{\dots\dots} = \dots\dots + (\dots\dots) \times \dots\dots$$
$$U_{\dots\dots} = \dots\dots + \dots\dots$$
$$U_{\dots\dots} = \dots\dots$$

b.

$$S_n = \frac{n}{2} [2a + (n - 1) \times b]$$
$$S_n = \frac{\dots\dots}{2} [2 \times \dots\dots + (\dots\dots - 1) \times \dots\dots]$$
$$S_n = \frac{\dots\dots}{2} [\dots\dots + (\dots\dots) \times \dots\dots]$$
$$S_n = \dots\dots \times [\dots\dots + \dots\dots]$$
$$S_n = \dots\dots \times \dots\dots$$
$$S_n = \dots\dots$$

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2. Diketahui suatu barisan aritmatika dengan $U_2 = 6$ dan $U_7 = 31$.
Tentukan suku ke 40

$$U_n = a + (n - 1) \times b$$

$$U_7 = a + (7 - 1) \times b = a + \dots b = \dots \quad \text{-----} \rightarrow \text{persamaan (1)}$$

$$U_2 = a + (2 - 1) \times b = a + \dots b = \dots \quad \text{-----} \rightarrow \text{persamaan (2)}$$

$$\dots b = \dots$$

$$b = \dots$$

Substitusi $b = \dots$ Ke persamaan (1) : $a + \dots b = \dots$

$$a + \dots (\dots) = \dots$$

$$a + \dots = \dots$$

$$a = \dots - \dots$$

$$a = \dots$$

Jadi, $U_{40} = a + (40 - 1) \times b$ ----- $\rightarrow U_n = a + (n - 1) \times b$

$$U_{40} = \dots + (40 - 1) \times \dots$$

$$U_{40} = \dots + (\dots) \times \dots$$

$$U_{40} = \dots + \dots$$

$$U_{40} = \dots$$