

NAME: _____

Daily Test

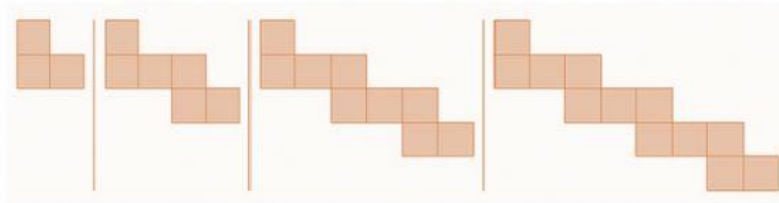
Smpk Kesuma Mataram

NUMBER PATTERNS, ARITHMETIC SEQUENCES AND SERIES

1. Write the next three numbers in each sequence below.

- a. 4, 7, 10, 13, _____, _____, _____.
- b. 2, 5, 9, 14, _____, _____, _____.
- c. 1, 4, 9, 16, 25, _____, _____, _____.
- d. 3, 5, 8, 13, 21, _____, _____, _____.
- e. 40, 37, 33, 28, 22, 15, _____, _____, _____.

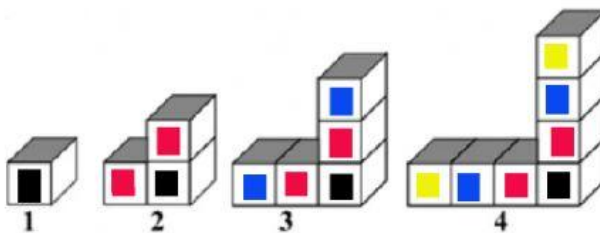
2. Assuming the pattern below continues, how many squares will be in Figure 5?



Answer

Figure 5

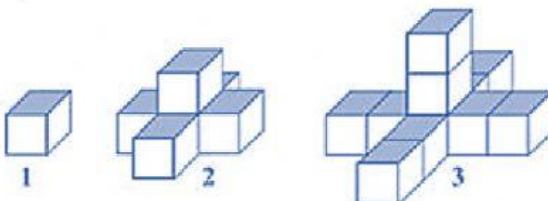
3. Assuming the pattern below continues, how many squares will be in Figure 5?



Answer

Figure 5

4. Sequences Based on Position. What comes next?



Answer

5. Sequences Based on Position. What comes next?

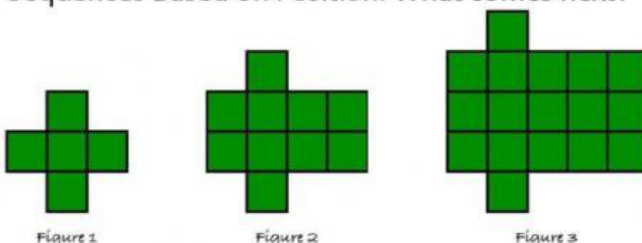


Figure 1

Figure 2

Figure 3

Answer

6. Write the n^{th} term of the sequence **8, 13, 18, 23,**

Answer

7. Write the n^{th} term of the sequence **-1, 2, 5, 8,**

Answer

8. Find the first four terms of a sequence if the formula of the n^{th} term is $U_n = 3n - 2$

Answer

9. Find the first four terms of a sequence if the formula of the n^{th} term is $U_n = 5n^2 + 1$

Answer

10. Diketahui barisan aritmetika 3, 5, 7, 9, Tentukan:

- Suku ke 30
- Jumlah 40 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. $S_n = \frac{n}{2} [2a + (n - 1) \times b]$

$S_{\dots\dots} = \frac{\dots\dots}{2} [2 \times \dots\dots + (\dots\dots - 1) \times \dots\dots]$

$S_{\dots\dots} = \frac{\dots\dots}{2} [\dots\dots + (\dots\dots) \times \dots\dots]$

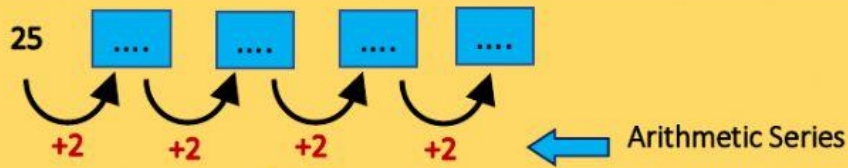
$S_{\dots\dots} = \dots\dots \times [\dots\dots + \dots\dots]$

$S_{\dots\dots} = \dots\dots \times \dots\dots$

$S_{\dots\dots} = \dots\dots$

11. In a meeting hall, there are 25 chairs in the first row. Next, in every row there are two more chairs than its previous. If there are 40 rows of chairs, find
- The number of chairs in the 15th row
 - The number of chairs in the hall

Solution



Given that: $U_1 = a =$

$b =$

Answer:

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

$$U_{15} = \dots + (\dots - 1) \times \dots$$

$$U_{15} = \dots + (\dots) \times \dots$$

$$U_{15} = \dots + \dots$$

$$U_{15} = \dots$$

So, the number of chairs in the 15th row is

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

$$S_{40} = \frac{\dots}{2} \times [2 \times \dots + (\dots - 1) \times \dots]$$

$$S_{40} = \dots \times [\dots + (\dots) \times \dots]$$

$$S_{40} = \dots \times [\dots + \dots]$$

$$S_{40} = \dots \times \dots$$

$$S_{40} = \dots$$

So, the number of chairs in the hall is