

NAME: \_\_\_\_\_

## Daily Test

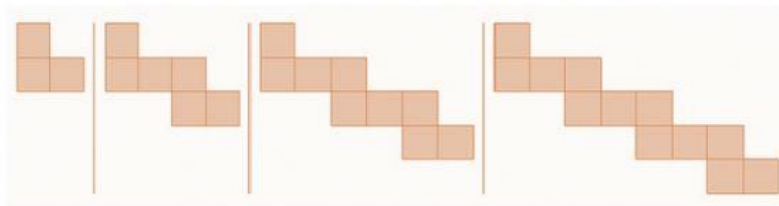
Smpk Kesuma Mataram

### 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, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

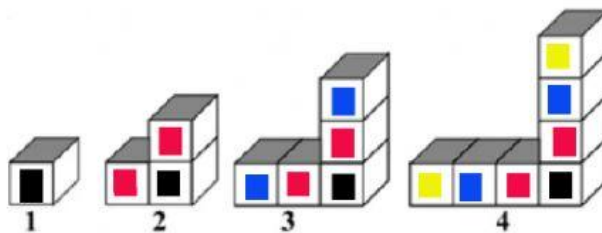
2. Assuming the pattern below continues, how many squares will be in Figure 5?



Answer

Figure 5

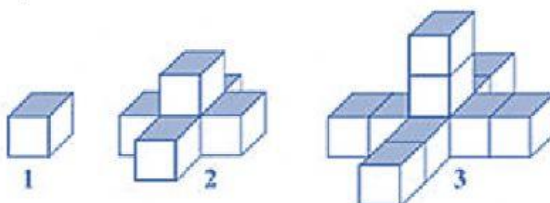
3. Assuming the pattern below continues, how many squares will be in Figure 5?



Answer

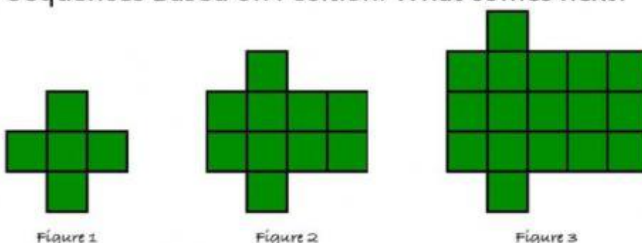
Figure 5

4. Sequences Based on Position. What comes next?



Answer

5. Sequences Based on Position. What comes next?



Answer

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

Answer

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

Answer

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

Answer

9. Find the first four terms of a sequence if the formula of the  $n^{\text{th}}$  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.  $S_n = \frac{n}{2} [2a + (n - 1) \times b]$

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

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

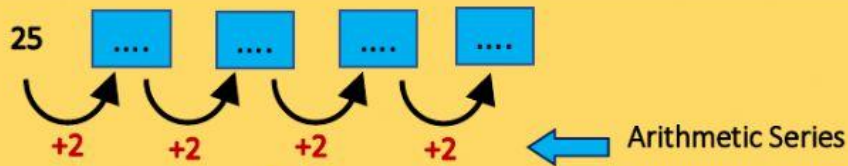
$S_{\dots\dots} = \dots\dots \times [\dots\dots + \dots\dots]$

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

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

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 15<sup>th</sup> 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 15<sup>th</sup> 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 .....