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, _____, _____, _____.

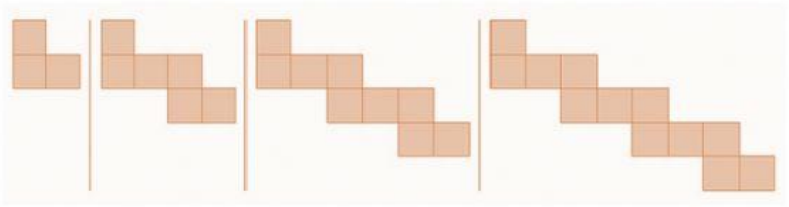
   b. 2, 5, 9, 14, _____, _____, _____.

   c. 1, 4, 9, 16, 25, _____, _____, _____

   d. 3, 5, 8, 13, 21, _____, _____, _____.

   e. 40, 37, 33, 28, 22, 15, _____, _____, _____.

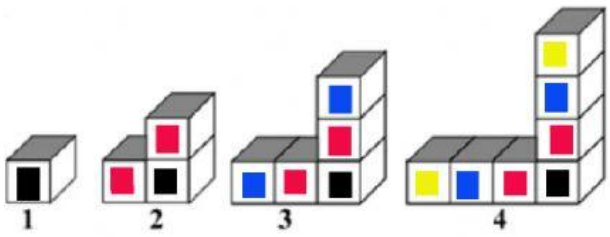
2. Assuming the pattern below continues, how many squares will be in Figure 5?



Answer

Figure 5

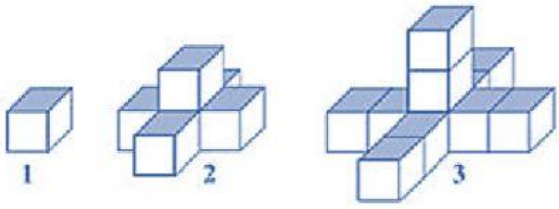
3. Assuming the pattern below continues, how many squares will be in Figure 5?



Answer

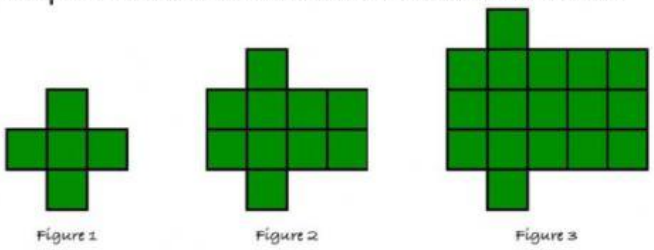
Figure 5

4. Sequences Based on Position. What comes next?



Answer

5. Sequences Based on Position. What comes next?



Answer

LIVEWORKSHEETS

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:
    a. Suku ke 30
    b. Jumlah 40 suku pertama

Jawab:

Diketahui: a = ...

b = ...

n = ...

Ditanya : $U_{.....}$

Penyelesaian:

a.

Un = a + (n − 1)xb

$U_{.....}$ = ... + (..... − 1) x .....

$U_{.....}$ = ... + (.....) x .....

$U_{.....}$ = ... + ...

$U_{.....}$ = ...

b.

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

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

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

$S_{....}$ = ...× [..... + ...]

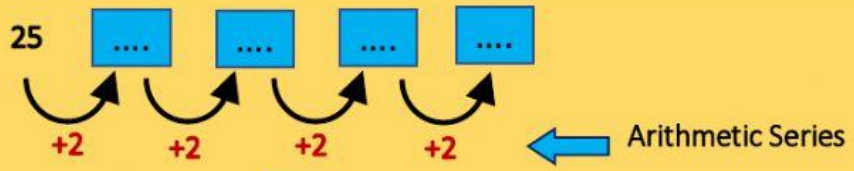
$S_{....}$ = ... × .....

$S_{....}$ = ...

LIVEWORKSHEETS

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

Solution



Given that: $U_1 = a =$ ....

$b =$ ....

Answer:

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

$U_{15} =$ ..... + (..... − 1) × .....

$U_{15} =$ ..... + (.....) × .....

$U_{15} =$ ..... + ...

$U_{15} =$ .....

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

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

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

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

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

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

$S_{40} = \ldots\ldots\ldots$

So, the number of chairs in the hall is ……

LIVEWORKSHEETS