

# Number Patterns

1. This pattern continues.



- a) Describe the pattern.

The pattern is made up of 3 squares with 1, 2, and 3 dots, which repeat in that order.  
The core of the pattern is:

- b) Sketch the next 3 terms.

- c) Sketch the 26th term.

2. This pattern continues. 7, 12, 17, 22, ...

- a) To find each term, add \_\_\_\_\_ to the preceding term.

- b) The next 3 terms are:  $22 + 5 = \underline{\quad}$ ,  $\underline{\quad} + 5 = \underline{\quad}$ ,  $\underline{\quad} + \underline{\quad} = \underline{\quad}$

- c) Find the 8th term.

Since the terms increase by \_\_\_\_\_ each time, compare with multiples of \_\_\_\_\_.

Pattern:                    7 , 12 , 17 , 22 , \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, ...

Multiples of \_\_\_\_\_: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, ...

Each term in the pattern is \_\_\_\_\_ more than a multiple of \_\_\_\_\_.

The 1st term:             $1 \times \underline{\quad} + 2 = 7$

The 2nd term:             $2 \times \underline{\quad} + \underline{\quad} = 12$

The 3rd term:             $3 \times \underline{\quad} + \underline{\quad} = \underline{\quad}$

The 4th term:             $4 \times \underline{\quad} + \underline{\quad} = \underline{\quad}$ , and so on

The 8th term:             $\underline{\quad} \times \underline{\quad} + \underline{\quad} = \underline{\quad}$

3. This pattern continues. 6, 10, 14, 18, ...

a) Describe the pattern. \_\_\_\_\_ .

b) Write the next 4 terms. \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

c) Find the 10th term. \_\_\_\_\_

4. This pattern continues. 5, 8, 11, 14, ...  
Find the 10th and the 20th terms.