

Exercise 2018-10 ED-00003(1)

(1) Consider the following sequence and answer the questions: 383 ; 379 ; 375 ; ... ; 255

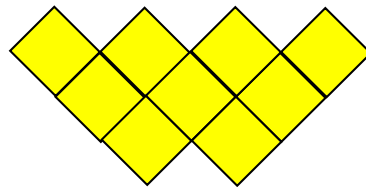
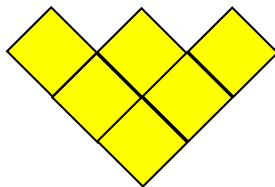
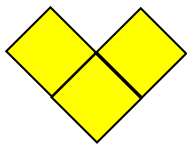
- Determine the general term of the sequence.
- Determine the 22nd term.
- How many terms does the sequence consist of?

(2) Complete the next five terms of each of the following sequences.

Also describe the number pattern in words:

- 14 ; -17 ; -20 ; -23 ; _____
- 11 ; -110 ; 1 100 ; _____
- 0 ; 3 ; 8 ; 15 ; _____

(3) Pattern 1 Pattern 2 Pattern 3



(a) Complete the following table:

Pattern:	1	2	3	4	5
Number of squares:	3	6			
Number of contact lines between squares:	2	6			

(b) Write the general term for each of the following:

- the number of squares.
- number of contact lines between squares.

(c) How many squares will there be in pattern 18?

(d) How many contact lines between squares will there be in pattern 25?

(e) In which pattern will there be 6 more contact lines between squares than the number of squares?