

Exercise 2015-9EC-00001(1)

(1) Write the next five numbers in each sequence:

Also write the pattern in words:

(a) -3 ; -11 ; -19 ; -27 ;

(b) 5 ; 8 ; 11 ; 14 ;

(c) 98 415 ; 32 805 ; 10 935 ; 3 645 ;

(d) 1 ; 1 ; 3 ; 4 ; 5 ; 9 ; 7 ; 16 ; 9 ;

(2) The general term for a sequence is $T_n = 5n + 3$.

(a) Determine the first four terms of the sequence.

(b) Determine the 85th term of the sequence..

(c) Which term in the sequence is equal to 523?

(3) Complete the following table and answer the questions:

(a)	Position in sequence	1	2	3	7	11		35
	Term	-4	-7	-10			-85	

(b) Describe the pattern in words.

(c) Determine the general term of the second difference of the above sequence as $T_n = \dots\dots\dots$

(d) Determine the 100th term of the sequence..

(4) Fill in the missing numbers for each sequence and determine the general term (T_n):

(a) _____ ; 6 ; 12 ; 24 ; _____ ; _____ ; _____ ; 384

(b) _____ ; _____ ; _____ ; _____ ; $5\frac{1}{2}$; $4\frac{3}{4}$; 4

(c) 136 ; _____ ; 142 ; _____ ; 148 ; _____ ; 154 ; _____