Introduction to Algebra

17. Write down the next two terms in each of the following sequences.

(a) 5, 10, 15, 20, …

(b) −10, −8, −6, −4, …

(c) 150, 138, 126, 114, …

18. In each of the following, find the first 2 terms of the sequence in which a_n is the general term.

(a) $a_n = 5 - 3n$

(b) $a_n = \dfrac{1}{-3n}$

19. In each of the following, write down the first 5 terms of the sequence.

(a) Square number sequence

(b) Triangular Sequence

(c) Fibonacci Sequence

20. In each of the following, write down the algebraic expression for the general term a_n of the sequence.

(a) 0, 1, 2, 3, …

(b) 4, 8, 12, 16, …

(c) 4, 16, 64, 256, …

(d) $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \cdots$

21. Each of the following figures shows a pattern formed by dots. Write down the general term of the number of dots for each of the following figures.

(a)

(b)

(c)