

Worksheet 2023-12 ED-00001(1) Arithmetic Sequences

(1) Write the next three terms in each of the following sequences:

[Also indicate which of the sequences are arithmetic sequences.]

(a) 3 ; 6 ; 12 ; 24 ; _____

(b) 3 ; - 4 ; - 11 ; - 18 ; _____

(c) 113 ; 115 ; 117 ; 119 ; _____

(d) 0,17 ; 0,37 ; 0,57 ; 0,77 ; _____

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

(f) 2 ; 8 ; 18 ; 32 ; _____

(2) Write the first four terms in each of the following sequences:

[Also indicate which of the sequences are arithmetic sequences.]

(a) $T_n = -3n$ _____

(b) $T_n = 2^n$ _____

(c) $T_n = n + 10$ _____

(d) $T_n = 4n + 1$ _____

(e) $T_n = n^2$ _____

(f) $T_n = \frac{n}{2}$ _____

(3) Consider the sequence: 3 ; 7 ; 11 ; 15 ;

(a) Calculate the general term of the sequence.

(b) Calculate T_{25} .

(c) Calculate n if $T_n = 87$.

(4) How many terms are there in the following sequence: $65 ; 59 ; 53 ; 47 ; \dots ; -85$?

(5) Place 6 terms between 8 and 29 for it to form an arithmetic sequence.
