NCERT Discrete 11.9.1 Q7

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Question: Find the indicated terms in the sequence whose nth terms is x(n) = 4n - 3. Find x_{17} and x_{24} .

Solution: In the question, following information is provided:

Symbol	Value	Description
x(n)	4n - 3	The nth term of the sequence
<i>x</i> ₁₇	?	17nth term
x ₂₄	?	24th term

TABLE I Parameters

We know that x(n) = 4n-3. So, after substituting the values in the formula. As, x_1 is the first term, we get:

$$x_{17} = 4 \times 16 - 3 = 61$$
 (1)

$$x_{24} = 4 \times 23 - 3 = 89 \tag{2}$$

The plot between x(n) and n is :

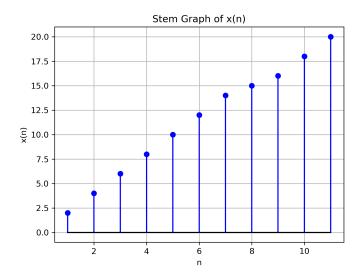


Fig. 1. x(n) vs n