

# NCERT Discrete 11.9.1 Q7

EE23BTECH11061 - SWATHI DEEPIKA\*

**Question:** Find the indicated terms in the sequence whose  $n$ th terms is  $a(n) = 4n - 3$ . Find  $a(17)$  and  $a(24)$ .

**Solution:** In the question, following information is provided:

Symbol	Value	Description
$x(n)$	$(4n + 1)u(n)$	The $n$ th term of the sequence
$x(16)$	?	17th term
$x(23)$	?	24th term

TABLE I  
PARAMETERS

$$a(17) = x(16) = 4 \times 16 + 1 = 65 \quad (1)$$

$$a(24) = x(23) = 4 \times 23 + 1 = 93 \quad (2)$$

$$X(z) = 4 \frac{z^{-1}}{(1 - z^{-1})^2} + \frac{1}{1 - z^{-1}} \quad |z| > 1 \quad (3)$$

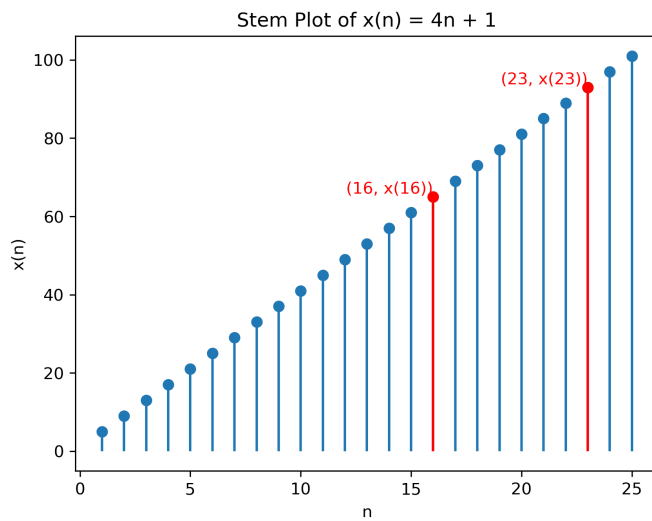


Fig. 1.  $x(n)$  vs  $n$