Sequence and Series

In sequence
a: First term
d: Difference (2^{nd} term – 1^{st} term)
n: General position of term

n^{th} term of the sequence is given by : nd + (a – d)

Exercise: 18
Find the next 3 terms of the following sequence.

1) 2, 5, 7, _____, _____, _____

2) 14, 19, 24, _____, _____, _____

3) 20, 27, 34, 41, _____, _____, _____

4) 15, 12, 9, _____, _____, _____

5) 10, 20, 30, _____, _____, _____

Fill in the blanks using the sequence rule.

6) _____, 7, 10, 13, _____, _____

7) _____, 10, 15, 20, _____, _____

8) _____, 1, 4, 7, _____, _____

9) _____, 15, 12, 9, _____, _____

10) _____, 7, 14, 21, _____, _____

Find the n^{th} term of the following sequence.

11) 5, 7, 9.... n^{th} term=_____

12) 14, 19, 24 .... n^{th} term=_____

13) 20, 27, 34, 41.... n^{th} term=_____

14) 25, 20, 15.... n^{th} term=_____

15) 36, 42, 48..... n^{th} term=_____

16) Find the 25^{th} term and 100^{th} term of all the sequence of question no 11 to 15.

17) Write the first 4 terms of the following sequence where n^{th} term is given.

a) $2n - 1$ _____, _____, _____, _____,

b) $3n + 2$ _____, _____, _____, _____,

c) $n + 4$ _____, _____, _____, _____,

d) $2n - 5$ _____, _____, _____, _____,

e) $-2n + 1$ _____, _____, _____, _____,

Find next three terms of the following sequence according to rule where first term is given.

18). Rule: add 5

4, _____, _____, _____

19) Rule: Multiply by 3

2, _____, _____, _____

20) Rule: Multiply by 2 and add 3:

1, _____, _____, _____

21) Rule: take away 3

12, _____, _____, _____

22) Rule: divide by 2 and add 4

24, _____, _____, _____

23) Rule add 2

24, _____, _____, _____

24) Rule: multiply by 3 and add 4

1, _____, _____, _____

25) Rule: Take away 5

24, _____, _____, _____