

Practice Assignment 1A

1. In which of the following situations, does the list of numbers involved make an arithmetic progression, and why?
- (i) The number of seats in every row in a concert hall, when there are 20 seats in the first row, 21 seats in the second row, and 22 seats in the third row and so on.
 - (ii) Room temperature after every hour, when the temperature at the first hour is 25 degrees and it decreases by 1 degree every hour.
 - (iii) Four cash prizes given by a school, when the prize given to the next position is half of the prize given to the previous position and the first prize is Rs. 1000.
2. Write first four terms of the A.P. when the first term ' a ' and the common difference d is given as follows:
- (i) $a = 2, d = 5$
 - (ii) $a = -4, d = -0.50$
3. For the following APs, write the first term and the common difference:
- (i) 15, 10, 5, 0, -5,...
 - (ii) 0.5, 1.2, 1.9, 2.6,...
4. Which of the following are APs? If they form an A.P. find the common difference d and write three more terms:
- (i) 1, 3, 6, 10...
 - (ii) -8, -5, -2, 1...
 - (iii) $-\frac{1}{4}, -\frac{1}{4}, -\frac{1}{4}, -\frac{1}{4}, \dots$
 - (iv) $1^2, 3^2, 5^2, 7^2, \dots$
5. Fill in the blanks in the following table, given that a is the first term, d the common difference and a_n the n^{th} term of the A.P.

	a	d	n	a_n
I	6	2	7
II	-5	10	-25
III	1.5	25	10.5

6. Find the sum of the following APs.

10, 15, 20..., to 8 terms.

7. Find the sums given below:

(i) $4 + 8\frac{1}{2} + 13 + \dots + 40$