

RAKESH K. SHARMA

AN ENTHUSIAST OF MATHEMATICS

**A LIFE-LONG LEARNER
HAPPILY IMPARTING THE SUBJECT KNOWLEDGE
SINCE EARLY 90'S**

{B.ED., M.B.A. (IT), M.SC.(MATHEMATICS)}



GMAT : ONE OF THE BEST EXAMS. THAT CAN PLACE YOU WORLDWIDE, IN THE UNIVERSITY OF YOUR DREAM IN MANAGEMENT MASTER DEGREE

SEQUENCE AND SERIES

WHAT IS THE DIFFERENCE BETWEEN THE TWO TERMS?

A **sequence** is a list of objects which have been ordered in a sequential fashion.

A **series** is a sum of all the terms of a **sequence**.

EXAMPLES OF SEQUENCE: $1, 2, 3, \dots$ (ARITHMETIC)

$1, 2, 4, \dots$ (GEOMETRIC)

EXAMPLES OF SERIES: $1 + 2 + 3 + \dots$ (ARITHMETIC)

$1 + 2 + 4 + \dots$ (GEOMETRIC)

ARITHMETIC PROGRESSION

FOR AP:

NTH TERM:

$$T_N = A + (N - 1)D$$

SUM TO NTH TERM:

$$S_N = \{N/2\} \{ 2A + (N - 1) D \}$$

A = FIRST TERM,

D = COMMON DIFFERENCE

$$= T_2 - T_1$$

EXAMPLE OF ARITHMETIC PROGRESSION

FIND 20TH TERM OF 3, 7, 11, ...
ALSO FIND SUM OF FIRST 20 TERMS.

HERE, $A = 3$, $D = 7 - 3 = 4$

20TH TERM:

$$T_{20} = 3 + (20 - 1) 4 = 3 + 76 = 79$$

SUM TO 20TH TERM:

$$S_{20} = \{20/2\} \{ 2(3) + (20 - 1) 4 \} = 820$$

HOPE YOU ENJOYED THE SESSION

**ON
GMAT MATH**



**AS PROMISED, WILL MEET YOU ON THE NEXT TOPIC, WITH AS
MUCH DETAILS AS REQUIRED FOR THE PROPER UNDERSTANDING...**

BYE FOR NOW !!!