

Quantitative Aptitude Practice questions on Progression:

1. Second term of a GP is 1000 and the common ratio is where n is a natural number. P_n is the product of n terms of this GP. $P_6 > P_5$ and $P_6 > P_7$, what is the sum of all possible values of n ?

- A. 4
- B. 9
- C. 5
- D. 13

2. Sum of first 12 terms of a GP is equal to the sum of the first 14 terms in the same GP. Sum of the first 17 terms is 92, what is the third term in the GP?

- A. 92
- B. -92
- C. 46
- D. 231

3. Sum of first 25 terms in AP is 525, sum of the next 25 terms is 725, what is the common difference?

- A. $8/25$
- B. $4/25$
- C. $6/25$
- D. $1/25$

4. Let the n^{th} term of AP be defined as t_n , and sum up to ' n ' terms be defined as S_n . If $|t_8| = |t_{16}|$ and t_3 is not equal to t_7 , what is S_{23} ?

- A. $23(t_{16} - t_8)$
- B. 0
- C. $23t_{11}$
- D. Cannot be determined

5. a, b, c, d and e are 5 distinct numbers that form an arithmetic progression. They are not necessarily consecutive terms but form the first 5 terms of the AP. It is known that c is the arithmetic mean of a and b , and d is the arithmetic mean of b and c . Which of the following statements are true?

- i. Average of all 5 terms put together is c .
- ii. Average of d and e is not greater than average of a and b .
- iii. Average of b and c is greater than average of a and d .

- A. i and ii only
- B. ii and iii only
- C. all three statements are true
- D. i and iii only

6. Consider a, b, c in a G.P. such that $|a + b + c| = 15$. The median of these three terms is a , and $b = 10$. If $a > c$, what is the product of the first 4 terms of this G.P.?

- A. 40000
- B. 32000
- C. 8000
- D. 48000

7. If 4 times the 4th term of an A.P. is equal to 9 times the 9th term of the A.P., what is 13 times the 13th term of this A.P.?

- A. 7 times the 13th term
- B. 0
- C. 13 times the 7th term
- D. 4 times the 4th term + 9 times the 9th term

8. Sequence P is defined by $p_n = p_{n-1} + 3$, $p_1 = 11$, Sequence Q is defined as $q_n = q_{n-1} - 4$, $q_3 = 103$. If $p_k > q_{k+2}$, what is the smallest value k can take?

- A. 6
- B. 11
- C. 14

D. 15

9. The sum of $2n$ terms of A.P. $\{1, 5, 9, 13, \dots\}$ is greater than sum of n terms of A.P. = $\{56, 58, 60, \dots\}$. What is the smallest value n can take?

A. 9

B. 10

C. 12

D. 14

10. a, b, c and d are in A.P., What can we say about terms bcd, acd, abd and abc ?

A. They are also in A.P.

B. They are also in H.P.

C. They are also in G.P.

D. They are not in an A.P., G.P. or H.P.

Answer Key –

Q.No.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Ans.	(B)	(A)	(A)	(B)	(A)	(A)	(B)	(D)	(A)	(B)