

## Chapter-13: Finite Series

269. In the sequence 2, 4, 6, ..... which one is the common term?

- (a)  $\frac{1}{2}n$                       (b)  $n$   
 (c)  $2n$                         (d)  $3n$

(c)

270. In the sequence  $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \dots$  which one is the common term?

- (a)  $\frac{1}{n}$                         (b)  $\frac{n-1}{n+1}$   
 (c)  $\frac{1}{2^n}$                       (d)  $\frac{n}{n+1}$

(d)

271. Which one is the  $n^{\text{th}}$  term of arithmetic series?

- (a)  $ar^{n-1}$   
 (b)  $a + (n-1)d$   
 (c)  $s_n = \frac{n}{2} \{2a + (n-1)d\}$   
 (d)  $s_n = \frac{a(1-r^n)}{1-r}$

(b)

272. Which term of the series  $6 + 9 + 12 + \dots + 93$ ?

- (a) 27                        (b) 28  
 (c) 29                        (d) 30

(d)

273.  $1 + 2 + 3 + 4 + \dots + 100 =$  what?

- (a) 4750                      (b) 4950  
 (c) 5050                      (d) 5150

(c)

274.  $1^2 + 2^2 + 3^2 + \dots + 10^2 =$  what?

- (a) 55                        (b) 110  
 (c) 385                      (d) 3025

(c)

275. Which one is the summation of cubes of the first  $n$  number of natural numbers?

- (a)  $S_n = \frac{n^2(n+1)^2}{4}$   
 (b)  $S_n = \frac{n^3(n+1)^3}{8}$   
 (c)  $S_n = \frac{n(n+1)(2n+1)}{6}$

(d)  $S_n = \frac{n}{2} \{2a + (n-1)d\}$

(a)

276. If  $3 + a + b + 81$  is in geometric series, what is the value of  $b$ ?

- (a) 9                        (b) 12                      (c) 18                      (d) 27

(d)

277. If the 1<sup>st</sup> term of a geometric series is 2 and common ratio is  $\frac{1}{2}$ . What will be the 4<sup>th</sup> term?

- (a)  $\frac{1}{16}$                       (b)  $\frac{1}{4}$                       (c) 1                      (d) 4

(b)

278. Which one is the common terms of series  $4 + 8 + 16 + \dots$ ?

- (a)  $2^{n-1}$                       (b)  $2^{n+1}$   
 (c)  $8^{n-1}$                       (d)  $8^{n+1}$

(b)

279. Which one is the 8<sup>th</sup> term of the series  $\frac{1}{\sqrt{2}} - 1 + \sqrt{2} - \dots$ ?

- (a) -16                      (b) -8                      (c) 8                      (d) 32

(b)

Answer to the question no. (280 – 281) on the basis of according to the information:

The 1<sup>st</sup> term of a arithmetic series is 2 and common difference is 3.

280. What is the  $n^{\text{th}}$  term of the series?

- (a)  $3n + 1$                       (b)  $\frac{n(3n+1)}{2}$   
 (c)  $3n - 1$                       (d)  $\frac{n(3n-1)}{2}$

(c)

281. What is the sum of the 1<sup>st</sup> 8 terms of the series?

- (a) 23                        (b) 25  
 (c) 100                      (d) 124

(c)

Answer to the question no. (282 – 283) on the basis of following information:

$\log 3 + \log 9 + \log 27 + \dots$

282. Which one is the common difference of the series?

- (a)  $\log 3$                       (b)  $\log 9$   
 (c)  $2\log 3$                       (d)  $3\log 3$

(a)

283. Which one is the 10<sup>th</sup> term of the series?

- (a)  $\log 1000$                       (b)  $\log 9000$   
 (c)  $\log 72900$                       (d)  $\log 59049$

(d)

Answer to the question no. (284 – 286) according to the information:

$2 + 5 + 8 + 11 \dots$  observe the series.

284. What is the difference of series?

- (a) -3                      (b) 3                      (c) 5                      (d) 7

(b)

285. What is the 10<sup>th</sup> terms of series?

- (a) 29                      (b) 31                      (c) 35                      (d) 37

(a)

286. What is the summation of 1<sup>st</sup> 8 terms?  
 (a) 200 (b) 124 (c) 100 (d) 92 **(c)**

Answer to the question no. (287 – 288) according to the information:

$$4 + 6 + 8 + \dots$$

287. The 12<sup>th</sup> terms of series is—  
 (a) 22 (b) 24 (c) 26 (d) 28 **(c)**

288. What is the summation of 1<sup>st</sup> 10 terms of the series?  
 (a) 130 (b) 150 (c) 260 (d) 300 **(a)**

Answer to the question no (289 – 290) according to the above series.

$$1 + \frac{1}{3} + \frac{1}{9} + \dots$$

289. Which one is the 7<sup>th</sup> term of the series?  
 (a)  $\frac{1}{729}$  (b)  $\frac{1}{243}$  (c)  $\frac{1}{81}$  (d) -3 **(a)**
290. Which one is the summation of 1<sup>st</sup> 8 terms?

- (a)  $\frac{364}{243}$  (b)  $\frac{1093}{729}$  (c)  $\frac{3280}{2187}$  (d)  $\frac{6560}{6561}$  **(c)**

291. How many symmetrical lines in a equilateral triangle has?  
 (a) 1 (b) 2 (c) 3 (d) 4 **(c)**

292. Same as 291?  
 (a) 1 (b) 2 (c) 3 (d) 4 **(c)**

293. A fan with three wings. What is the angle of rotating?  
 (a) 60° (b) 90° (c) 108° (d) 120° **(d)**

294. Which one has many symmetrical lines?  
 (a) In circle (b) In square (c) In triangle (d) In rectangle **(a)**

295. In the figure BC || DE. Which one is correct?

- (a) AB : BC = AD : DE  
 (b) AD : DB = AE : EC  
 (c) BC : DE = AD : AE  
 (d) AD : DE = AE : CD **(b)**

