

CHAPTER-5 | Arithmetic Progressions

QUIZ
PART-11

1. Given $a=5, d=3, a_n=50$, find n and S_n :

- A. $n=15, S_n=375$
 B. $n=16, S_n=400$
 C. $n=17, S_n=400$
 D. $n=18, S_n=380$ (C)

Explanation: Using the formula for a_n and S_n ,
 $n=17$ and $S_n=400$

2. Given $a=7, a_{13}=35$ find d and S_{13} :

- A. $d=2, S_{13}=455$
 B. $d=3, S_{13}=455$
 C. $d=4, S_{13}=495$
 D. $d=5, S_{13}=505$ (B)

Explanation: $d=3$ and $S_{13}=455$

3. Given $a_{12}=37, d=3$, find a and S_{12} :

- A. $a=25, S_{12}=450$
 B. $a=28, S_{12}=450$
 C. $a=30, S_{12}=500$
 D. $a=35, S_{12}=525$ (B)

Explanation: $a=28$ and $S_{12}=450$

4. Given $a_3=15, S_{10}=125$, find d and a_{10} :

- A. $d=5, a_{10}=45$
 B. $d=4, a_{10}=50$
 C. $d=3, a_{10}=45$
 D. $d=2, a_{10}=40$ (A)

Explanation: $d=5$ and $a_{10}=45$.

5. Given $d=5, S_9=75$, find a and a_9 :

- A. $a=2, a_9=40$
 B. $a=3, a_9=45$
 C. $a=4, a_9=50$
 D. $a=5, a_9=55$ (B)

Explanation: $a=3$ and $a_9=45$.

6. Given $a=2, d=8, S_n=90$, find n and a_n :

- A. $n=10, a_n=78$
 B. $n=9, a_n=74$
 C. $n=11, a_n=80$
 D. $n=12, a_n=82$ (A)

Explanation: $n=10$ and $a_n=78$

7. Given $a=8, a_n=62, S_n=210$, find n and d :

- A. $n=10, d=4$
 B. $n=12, d=3$
 C. $n=11, d=2$
 D. $n=13, d=5$ (A)

Explanation: $n=10$ and $d=4$.

8. Given $a_n=4, d=2, S_n=-14$, find n and a :

- A. $n=7, a=1$
 B. $n=8, a=2$
 C. $n=6, a=3$
 D. $n=5, a=4$ (A)

Explanation: $n=7$ and $a=1$.

9. Given $a=3, n=8, S=192$, find d :

- A. $d=6$
 B. $d=7$
 C. $d=5$
 D. $d=4$ (A)

Explanation: $d=6$.

10. Given $l=28, S=144$, and there are 9 terms, find a :

- A. $a=8$
 B. $a=10$
 C. $a=12$
 D. $a=6$ (A)

Explanation: $a=8$