INTERNATIONAL INDIAN SCHOOL BURAIDAH

Worksheet for the Academic Year 2026-27

CLASS: IX SUBJECT: Mathematics DATE: 08/11/26

LESSON 8 : WHAT COMES NEXT: EXPLORING SEQUENCES AND PROGRESSIONS

1. The first term of an AP is p and the common difference is q, then the 10^{th} term is

[a) p+9q $b)\ q+9p$ $c)\ p-9q$ $d)\ 2p+9q$]

2. In an AP d= -4, n=7, a_n=4, then a is

[a)6 b) 7 c) 20 d) 28]

3. Which term of the AP -29, -26, -23, …….is 16

[a)11^{th} b)16^{th} c) 10^{th} d) 31^{st}]

4. Id $a_{15} - a_{11}$ =48, the common difference is

[a) 12 b) 16 c) -12 d) -16]

5. If the common difference of an AP is 3, then $a_{20} - a_{15}$ is

[a)5 b)3 c) 15 d) 20]

6. The sum of first five multiples of 3 is

[a) 45 b) 55 c) 65 d) 75]

7. If the nth term of an AP is 7n – 4 , the common difference is

[a)7 b) 7n c) 4 d) -4]

8. 4^{th} term from the end of -8, -5, -2, ……49 is

[a) 37 b) 40 c) 1 d) 43]

9. Find the 5^{th} and 9^{th} terms of the sequence 5, 10, 20,…….

10. Which term of the G. P 3, 6, 12, …… is 768

11. The first term of a G. P is 1. The sum of third and fifth term is 90. Find the common ratio.

12. The 3^{rd} term of a G. P is 12 and 8^{th} term is 384. Find the 13^{th} term

13. Find three numbers in G. P, whose sum is 26 and product is 216.

14. The sum of 5^{th} and 7^{th} term of an AP is 52 and the 10^{th} term is 46, find the AP. Write the explicit formula and the recursive formula for the nth term.

15. Check whether -150 is a term of 17, 12, 7, 2, ….

16. Find the number of multiples of 7 between 200 and 500 . [43

17. If k+7, 2k – 2 and 2k+6 are in AP , find the value of k.

18. Find the 12^{th} term of GP, whose 8^{th} term is 192 and common ratio 2. [3072

19. Which term of the GP 1/3, 1/9, 1/27…..is 1/19683 [n= 9

20. If the 4^{th} and 9^{th} term of a GP are 54 and 13122respectively. Find the GP. Write the explicit formula and the recursive formula for the nth term.