

Sequence Review

Name _____

Tell whether each sequence is arithmetic, geometric, or neither, and supply the missing terms of the sequence.

1. 3, 7, 11, 15, _____, _____ Type of sequence? _____

2. 2187, 729, 243, 81, _____, _____, _____ Type of sequence? _____

3. What is the 4th term in the sequence: $t_n = 13 - 4n$

4. What is the 6th term in the sequence: $t_n = \frac{(-2)^n}{8}$

Find a formula for the nth term of each arithmetic sequence:

5. -3, -10, -17, -24,

6. 5, 7, 9, 11,

Find the arithmetic mean of each pair.

7. 4, 20

8. -6, 2

9. Insert three arithmetic means between 6 and 30.

6, _____, _____, _____, 30

10. Insert four arithmetic means between 18 and 78.

18, _____, _____, _____, _____, 78

Find a formula for the nth term of each geometric series.

11. 2, 6, 18, 54,

12. 64, 48, 36, 27,

Find the specified term of each arithmetic sequence.

13. 3, 11, 19, ; $t_{40} =$

14. $t_5 = 24$ $t_9 = 40$; $t_2 = ?$

Find the specified term of each geometric sequence.

15. 2, 6, 18, 54, ; $t_{11} =$

16. $t_3 = 4$ $t_6 = 32$; $t_{10} = ?$

Find the geometric mean of each pair of numbers

17. 2, 32

18. $\frac{1}{12}, \frac{1}{48}$

19. Insert two geometric means between the numbers -4 and 108

-4, _____, _____, 108

20. Insert 3 geometric means between the numbers -3 and 486

3, _____, _____, _____ 768