

Name: _____

Unit 12 Review

Determine if the series is arithmetic or geometric. Determine the common difference or ratio and the next 3 terms.

1. 7, 14, 28, 56, ...	2. -16, -7, 2, 11, 20, ...	3. 84, 76, 68, 60, ...
4. -486, 162, -54, 18, ...	5. -2, -10, -50, ...	6. 47, 32, 17, 2, ...

If the sequence is arithmetic, what are the missing terms?

7. 5, __, __, __, 33	8. 6, __, __, __, __, 21	9. 22, __, __, __, -6
10. 13, __, __, __, 45	11. 1, __, __, -5	12. -10, __, __, __, __, 45

Find the 5th term of the sequence.

13. 9, 17, 25, ...	14. -136, 68, -34, ...	15. 3, 15, 75, ...
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Find the 5th term of the sequence.

16. 5, 9, 13, 17, ...	17. 16, 7, -2, ...	18. 192, 48, 12, ...
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Determine the first 3 terms in the sequence.

19. $a_n = 5n - 6$	20. $a_n = 4n^2 + 7$	21. $a_n = -3n^3 + 16$
22. $a_n = n^2 + 3n$	23. $a_n = -n^2 + 5$	24. $a_n = 4^n - 8$

Expand the series and evaluate.

25. $\sum_{k=9}^{11} \frac{6}{k+1}$	26. $\sum_{k=5}^9 \frac{k}{7}$	27. $\sum_{k=0}^4 k^3 - k^2$
28. $\sum_{k=6}^8 \frac{3}{k^{-2}}$	29. $\sum_{k=3}^6 (-2)^k$	30. $\sum_{k=2}^7 (k+7)^2$