

Chapter 11 1 – 4 Review College Algebra

- 1) List the first five terms of the arithmetic sequence with $a_1 = 52$ and $d = 3$.
- 2) Find the 33rd term of the sequence 65, 54, 43 . . .
- 3) Now find the sum of the sequence above.
- 4) Find five arithmetic means between 24 and 39.
- 5) Which term of $-15, 12, 39, \dots$ is 309?
- 6) Find the sum of the odd integers from 33 to 999.
- 7) Find the sum of the first 100 terms of the arithmetic series with $a_1 = -46$ and $d = 19$.
- 8) Find the first 3 terms of the arithmetic sequence with a first term of 7, a last term of 139, and a sum of 876.
- 9) Find the 7th term of the geometric sequence with a first term of 2 and a common ratio of -3

10)
$$\sum_{i=1}^{22} (3i^2 + 5i - 8)$$

11) Find the first three terms of the geometric sequence if the 5th term is 80 and 8th term is -640

12) Find the sum of the first 7 terms of a geometric series whose first term is -3 and whose common ratio is -2 .

13) Find the sum of: $12 + 4 + \frac{4}{3} + \dots$

14) Which term of $\frac{3}{8}, \frac{-3}{2}, 6, \dots$ is -384 ?

15) Expand $(x - 2b)^4$

16) Find the 6th term in the expansion of $(2m - 3n)^7$

17) Find the 2nd term in the expansion of $(a - 3b)^5$

18) Show definition and evaluate: $\frac{18!}{12!}$

19) Show definition and evaluate: $\frac{13!}{6!7!}$