

Name: _____ Class: _____ Date: _____

ID: B

Algebra 2 Trig Chapter 12 Remote Exam

1. Write the explicit formula for the geometric sequence with $a_1 = 4$ and $r = -3$. Then find a_5 .
3. Charles makes gift baskets for Memorial Day. He has 9 baskets left over from last year, and he plans to make 7 more each day. If there are 16 work days until the day he begins to sell the baskets, how many baskets will he have to sell?
5. Evaluate the infinite geometric series $108 + 18 + 3 + \dots$

Name: _____

ID: B

7. Write the series $\frac{3}{4} + \frac{9}{16} + \frac{27}{64} + \frac{81}{256} + \frac{243}{1024} + \frac{729}{4096}$ in summation notation

9. Find the first 5 terms of the sequence with $a_1 = 5$ and $a_n = -2a_{n-1} + 1$.

Name: _____

ID: B

11. Alejandro earned \$21,000 during the first year of his job driving for Tuber. After each year he received a 2% raise. Find his total earnings during the first five years on the job.

13. Find S_8 for $\frac{3}{4}, 1, \frac{4}{3}, \frac{16}{9}, \dots$

15. Find the 11th term of the arithmetic sequence with $a_3 = 23$ and $a_7 = 35$.

Name: _____

ID: B

17. Find the first 5 terms of the sequence with $a_n = \frac{n}{(n+1)^2}$.

19. Find the Sum of the first 50 term of the arithmetic sequence $5, -1, -7, -13, \dots$