Review on 11-4 and 11-5 **Name:**_____

Hour: _____

State if each list is a sequence or a series, arithmetic or geometric, finite or infinite.

1. 5, 2.5, 1.25, ---------

2. 5 + 25 + 125

3. 3 + 7 + 11 + 15 + ---------

4. 3, 7, 11, 15, 19

Match each formula to its sum

5. The sum of a finite geometric series

6. The sum of a finite arithmetic series

7. The sum of an infinite geometic series (r < 1)

8. The sum of an infinite geometric series (r > 1)

a) $S = \frac{a_1}{1-r}$

b) $S_n = \frac{a_1\left(1-r^n\right)}{1-r}$

c) $S_n = \frac{n}{2}(a_1 + a_n)$

d) NA

Use the finite sequence. Write the related series. Then evaluate the series.

9. 16, 19, 22, 25, 28, 31, 34

10. The sequence 20, 26, 32, 38, 44, ..., 80 has 11 terms. Evaluate the related series.

11. For the series $\sum_{n=1}^{6} 4n$, find the number of terms in the series.

12. For the series $\sum_{n=2}^{9} (n + 1)$, find the number of terms in the series.