Name _____ Date _____
Mr. Schlansky Algebra II

Finding the Sum of a Series (Summation Notation)

1. Write an expression in summation form to find the sum of the first n terms of the sequence $3, 6, 12, 24...$
Use your formula to find the sum of the first four terms.

2. Write an expression in summation form to find the sum of the first n terms of the series $3 + 15 + 75 + 375 + ...$
Use your formula to find the sum of the first three terms.

3. Write an expression in summation form to find the sum of the first n terms of the sequence $4, -12, 36, -108...$
Use your formula to find the sum of the first five terms.

4. Write an expression in summation form to find the sum of the first n terms of the series $\frac{1}{4}+\frac{1}{2}+1+2+...$

Use your formula to find the sum of the first four terms.

5. Write an expression in summation form to find the sum of the first n terms of the sequence $1,-3,9,-27...$

Use your formula to find the sum of the first five terms.

6. Write an expression in summation form to find the sum of the first n terms of the series $-4,-8,-16,-32-...$

Use your formula to find the sum of the first four terms.

7. Write an expression in summation form to find the sum of the first n terms of the sequence 128, 64, 32, 16…
Use your formula to find the sum of the first four terms.

8. Write an expression in summation form to find the sum of the first n terms of the series $7-42+252-1512+\ldots$
Use your formula to find the sum of the first three terms.

9. Write an expression in summation form to find the sum of the first n terms of the sequence $\frac{1}{16},-\frac{1}{4},1,-4\ldots$
Use your formula to find the sum of the first five terms.