

## MATH 2B/5B Prep: Sigma Notation

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1. Write the sum  $2 + 5 + 8 + \cdots + 59 + 62$  using sigma notation.

2. Write  $\sum_{i=1}^8 i^2 + 1$  as a sum.

3. Write out and simplify  $\sum_{i=1}^n \frac{1}{i} - \frac{1}{i+1}$  for  $n = 1, 2, 3, 4$ . What is the pattern? What happens as  $n$  goes to infinity?