

1. Compute the surface area of a rectangular prism with side lengths 2, 3, 4.

2. Let $S_n = 1 + 2 + \dots + n$. Define

$$T_n = \frac{S_2}{S_2 - 1} \cdot \frac{S_3}{S_3 - 1} \cdot \dots \cdot \frac{S_n}{S_n - 1}.$$

Find T_{2015} .

3. A bag contains 12 marbles: 3 red, 4 green, and 5 blue. Repeatedly draw marbles with replacement until you draw two marbles of the same color in a row. What is the expected number of times that you will draw a marble?