Assignment 6

The due date for submitting this assignment has passed.
As per our records, you have not submitted this assignment.

1) Consider a 10 ply polymer of N = 10 monomer units, each unit of length of \( n = 1 \times 10^{-3} \) m units. What is the probability of having an end-to-end distance of \( R \approx 6 \times 10^{-3} \) m?

No, the answer is incorrect.

2) Consider a 10 ply polymer of N = 100 monomer units, each unit of length of \( n = 1 \times 10^{-3} \) m units. What is the probability of having an end-to-end distance of \( R \approx 60 \times 10^{-3} \) m so that total length \( L = N \times R > 2007 \) ?

No, the answer is incorrect.

3) Consider a 10 ply polymer of N = 5000 monomer units, each unit of length of \( n = 1 \times 10^{-3} \) m units. Consider a 10 ply polymer of N = 5000 monomer units, each unit of length of \( n = 1 \times 10^{-3} \) m units. What is the rate of the variance in the end-to-end distance in 10 ply polymer?

No, the answer is incorrect.

4) Consider a 10 ply polymer modeled as a "helix rotating chain", where the consecutive monomers are placed at an angle of \( \theta = 60 \) degrees. What is the average of the correlation between the concomitant vectors \( \langle i_{x_1}, i_{x_2}, i_{x_3} \rangle \)?

No, the answer is incorrect.

5) Consider a 10 ply polymer modeled as a "helix rotating chain", where the consecutive monomers are placed at an angle of \( \theta = 60 \) degrees. What is the average of the square of end-to-end distance of the polymer? Report your answer as a factor of \( 10^{-3} \) m^2.

No, the answer is incorrect.

6) Consider the relationship between the computed contact probability between generic (a) and the generic contact probability between (b) in terms of base pairs (c). For human genome, the relationship between (a) and (b) can be described by which of the following?

No, the answer is incorrect.

7) Arrange the values of 

Arranged values in increasing order of A:

No, the answer is incorrect.