

Biopolymers: Building Blocks of Life Worksheet

Building Polymers Activity: Data Tables

Student Name _____ Class/Period _____ Date _____

Activity 1 Data Table: Building Straight-Chain Polymers

Chain Length Data	Value	Unit
Average (mean)		Monomers/chain
Minimum		Monomers
Maximum		Monomers
Median		Monomers

Calculate the mean by this formula,

$$\text{Mean} = \frac{\text{Total number of monomers in all chains}}{\text{Number of chains}} = \frac{\text{_____ monomers}}{\text{_____ chains}}$$

Activity 2 Data Table: Building 2-D Polymers with Bends

Number of Chains	0 bends	1 bend	2 bends	3 bends	>3 bends
Dimer (2-long)					
Trimer (3-long)					
Tetramer (4-long)					
Pentamer (5-long)					
Hexamer (6-long)					
Heptamer (7-long)					
Octamer (8-long)					
Nonamer (9-long)					
Decamer (10-long)					
Polymer (>10-long)					

Building Polymers Activity: Data Analysis and Discussion

Questions

1. In your data, do the median and mean have the same value? Why do you think that happened?
2. List three differences between the chains you made in Activity 1 and Activity 2.
3. Based on your data, is the median or mean the most important number to describe your collection of chains? Explain your answer.