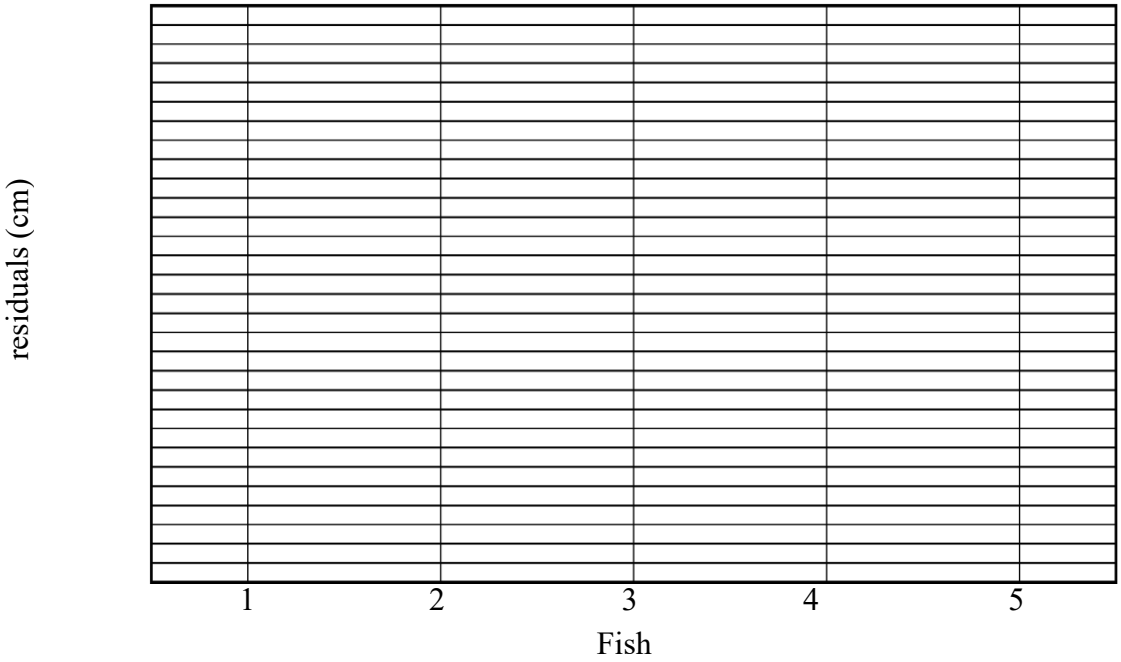
LAB 1 PRE-LAB

1. The table below records measurements of the lengths l of five goldfish. Calculate the average length $\bar{l} = (\sum_{i=1}^{N} l_i)/N$ of this population of goldfish, and the "residual," or deviation from average length $l - \bar{l}$, for each fish.

Fish	Length l (cm)	$l - \bar{l}$ (cm)
1	5.83	
2	5.88	
3	6.37	
4	4.82	
5	5.71	
Average		

2. Make a scatter plot of the residuals below. Scale your graph to use most of the space.



3. The "reaction time" activity requires you to use formula (3) to calculate time from a measured distance. Use that formula to calculate the times corresponding to the distances d in the table below and enter the calculated times into the table.

d (cm)	Time (s)
10.0	
20.0	
30.0	
40.0	