Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Each answer is to be done on your own.***

1. Prepare a graph and a table of the specific activities of your wild-type and mutants. Include error bars and statistical analysis using PrismGraphPad. Insert png versions of your graphs and tables in this document. **(2 pts)**
2. For each wild-type and your mutant, prepare a Michalis Menten and an insert double recipriocal (lineweaver burk) plot and a table of the Km and Vmax for each enzyme. Insert png versions of your graphs and tables in this document **(2 pts)**
3. Calculate the Kcat for each wild-type and mutant and create a table of results. **(2 pts)**
4. Describe the differences you observe for each kinetic measurement between the wild-types and then the mitochondrial/cytosolic MDH and mutant MDH. Using a paragraph, what the impact of the mutation is on the kinetics. (hint – not just something is faster or slower, but the meaning of any changes on the kinetics of the mutation. **(4 pts)**