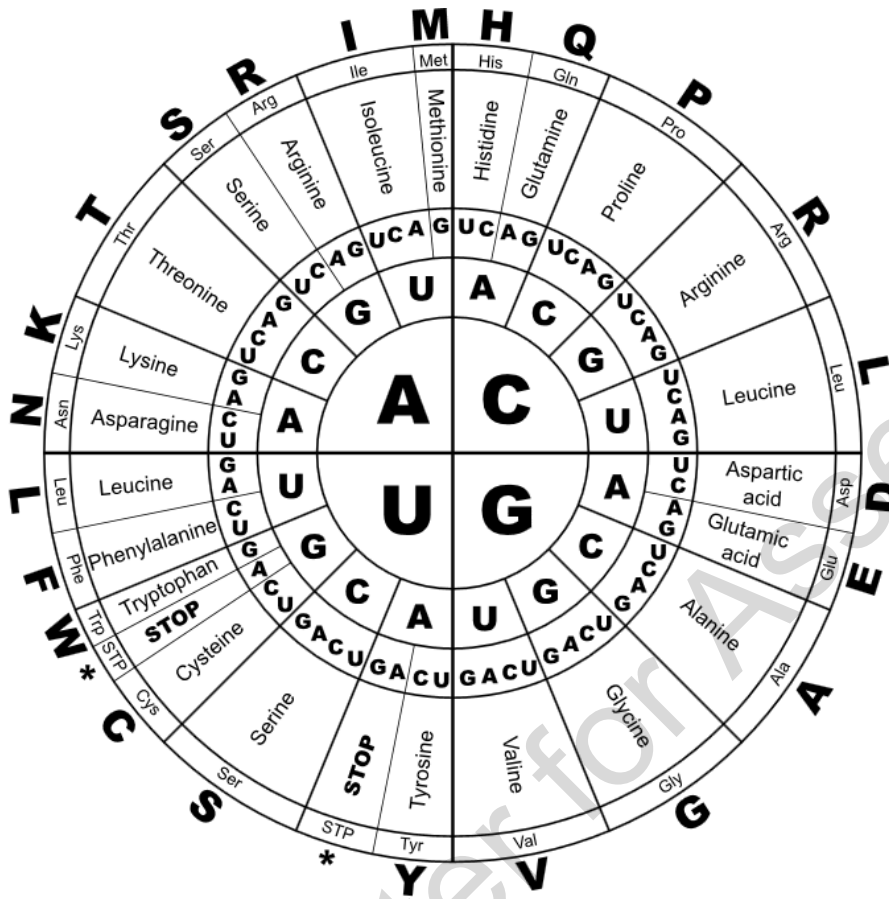


Extended Response (ER) Sample Item Grades MS and HS

1.



**Part A**

What is a point mutation?

**Part B**

Taking into consideration the genetic code diagram shown, is it possible that a point mutation in a gene could result in the correct amino acid being translated? Using the diagram, give a specific example to support your answer.

**Part C**

Explain how a point mutation might benefit or harm an individual.