Changing the length of the target phrase would most likely decrease the generations because with more letters the chances of getting a higher base fitness increases and also makes it easier when breeding since it has a higher chance of getting the correct letters. Decreasing it would make it harder since there would be a much smaller chance of getting those values. Changing the population would mostly lead to increasing the amount of generations it takes as there is a larger chance of not getting the correct letters when breeding the two functions. Changing the mutation rate would affect the generations. The higher the value the longer it takes for the target phrase to be reached since it change values in the child array more often which usually more negatively impactful. Changing the range of characters makes it harder for the target phrase to be reached because it introduces more possibilities. I would think that the method that adds random parts of the array would be more effective because it would not be adding the same segments together. Changing the mating factor would cause their to be a higher change of better array elements of being picked which would allow the arrays to reach the target faster. Changing the maximum generations would cause the average fitness to go up since it would allocate more changes to breeding the arrays together to get a better child array. I would say that the mating pool function would take the longest since it has to repeat indexes of the array to imitate a raffle.