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CSE 516-50  
Programming Assignment Two

## 1. Plot for Study 1

A graph of a graph

Description automatically generated

## 2. Answer to Question 1

It's possible to combine all the given expressions.

This simplified version is what is calculated in my code and used for all answers.

As we can see both from the plot and from the formula, U is inversely proportional to distance. This makes sense from a networking standpoint, since as distance increases, the latency increases, and the stop-and-wait protocol is inefficient when latency is high.

## 3. Plot for Study 2

A graph of a graph

Description automatically generated

## 4. Answer to Question 2

As we see from the formula and the plot, utilization is directly proportional to the frame size. This makes sense from a networking standpoint because as the latency remains constant and the amount of data per frame increases, the efficiency increases.

## 5. Plot for Study 3

## 6. Answer to Question 3

## 7. Code/excel sheet for calculating the values.