Dear Mr. Watchorn,

Executive Summary:

I hope this email finds you well. As per your instruction, I have completed the assignment using four equations in a MATLAB script. Please find below the discussion, outcomes, and conclusions of the test.

The MATLAB script tests four different equations: Laguerre Polynomials, Volume of a grain silo, Elliptic Curve Theory, and Finding AC Voltage. These equations are evaluated at two different points to prove that these equations work.

Discussion:

In creating the script, I made certain decisions regarding documentation, modularity, and style. To ensure that the script is easy to understand and maintain, I documented each section of the code with comments. I also used meaningful variable names to improve code readability. Furthermore, I created separate sections for each equation to improve modularity.

For Equation 1, I used the Laguerre Polynomials since they are sometimes used for quantum cryptography, and I find cryptography an interesting subject. For Equation 2, I used the volume formula for a grain silo, this is important for farmers to know how much they can store in a silo from a harvest. For Equation 3, I used the Elliptic Curve Theory, this is also used in cryptography. For Equation 4, I used the formula for finding AC voltage, this is mostly known for wall chargers, and is important that anything charging does not get fried if too much or too little voltage gets passed to it.

Outcomes:

I tested the script by simulating different inputs for each equation.

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Tests for equation 1 (Laguerre Polynomials).

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Test for equation 2 (Volume of a grain silo).

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Tests for equation 3 (Elliptic Curve Theory).

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Tests for equation 4 (Finding AC Voltage).

Conclusions:

In conclusion, the MATLAB script is an effective tool for testing equations. The script's modularity and documentation make it easy to understand and maintain. Based on the test outcomes, I can confidently say that the script behaves as expected.

Please let me know if you have any questions or concerns.

Best regards,

Michael Dekoski