

Take Home Cases

ME 421 Lab - Section 3

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Take Home Case 1

To: Ms. Plot

From: MathWorks Team

CC:

Subject: Using min() and max() functions to plot extrema

In this case, we will be using the min and max functions to find the extrema for your different functions. To use these functions, however, we need to evaluate your function across a specific range of input variables. In other words, you must initiate a time vector and a function of t. After this is done, the min/max of your function can be found along with the time that they occur at. After this, these values can be graphed over your original function. When graphing the extrema, use LineSpec options to apply the specific color and shapes to your extrema in the associated plot commands.

All these steps can be seen in the code attached below. I have also included sources for the relevant MATLAB documentation. For reference, documentation for any function can be looked up by typing “doc <function>” into the command window.

Thank you for your patience and happy coding!

-The MathWorks Team

Sources Used:

1. MathWorks. (2021). Min (r2020b). Retrieved March 4, 2021
<https://www.mathworks.com/help/matlab/ref/min.html>
2. MathWorks. (2021). Max (r2020b). Retrieved March 4, 2021
<https://www.mathworks.com/help/matlab/ref/max.html>
3. MathWorks. (2021). LineSpec (r2020b). Retrieved March 4, 2021
<https://www.mathworks.com/help/matlab/ref/linespec.html>