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1 % Ian Woodbury
2 % 9/19/21
3 % ECE 202 Fall 2021 MATLAB Exercise M4
4 % Plotting different graphs in terms of x(distanvce in meters) and t
5 % (time in s or ms) Each graph labeled in their own section
6
7 clear
8
9 % ----- Shifted Sinusoid -----
10
11 x = linspace(-5, 5, 400); % sets x axis as x, in meters, w/ 400 points
12 g = 4*cos(3*(x-2)); % function g(x), plotting a point for every x value
13 plot(x, g, 'r', 'LineWidth', 3) % % plots function g in terms of x,
14 % and the 'r' makes the plot red
15 grid on % creates grid lines for legibility
16 axis([-inf inf -6 6]) % makes axis -6 to 6 on the y
17 set(gca, 'FontSize', 14) % sets the font size for axis values
18 xlabel('x (m)', 'FontSize', 20); % label for the x axis, w/ units
19 ylabel('g(x)', 'FontSize', 20); % label for y axis
20 title("ECE 202 MATLAB Exercise M4 Part (b): \newline Shifted" ...
21 + " Sinusoidal Graph", 'FontSize', 24)
22 % creates the title for the graph, M4, and the given graph
23
24
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