

Programming Assignment 03

Assigned: Wednesday 10 September

Due: By start of class, Wednesday 17 September

Convert your MATLAB script from Programming Assignment 02 to a MATLAB script that appropriately calls functions. The main script, **pa03xxx.m**, should have function calls to

1. A function that asks the user for the initial speed (ft/min), acceleration (ft/min²), and time (min) of acceleration for a race car.
2. A function that calculates the final speed and distance traveled during the acceleration period.
3. A function that reports the final speed and distance traveled in SI units.

Turn in

1. A 3.5in floppy with your script (saved as **pa03xxx.m** where **xxx** is your initials).
your floppy should be labeled w/ your name and programming assignment number
2. A copy of the evaluation criteria sheet on the following page (with your name filled in!).
3. A printout of your script and functions
4. A copy of a screen display that tests your script with an initial speed of 47 ft/min, acceleration of 11.3 ft/min², and acceleration time of 3.7 minutes.
5. Please staple (do not dog ear) items 2, 3, and 4 together.

You will be evaluated on programming style as well as correctness of results. Your script (and functions) must each contain

1. The full header section (w/ needs and results)
2. A variable dictionary
3. Appropriate comments/whitespace
4. MATLAB statements to achieve the purpose of the script/function

Your user interface (screen display when the program is run) must

Display your header when first run
Ask for input values in appropriate units
Report results with appropriate units
Have appropriate whitespace and be easy to read

The evaluation algorithm is provided on the following page.

Programming Assignment 03 - Evaluation Criteria

Name _____

Criteria	Points Available	Points Awarded
Program Style		
Header	7	
Variable dictionary	7	
Whitespace/readability	7	
Comments	7	
Organization	7	
All names meaningful	7	
Functions		
Three functions	12	
Header in each	6	
Purpose identified	6	
Needs/results identified	6	
Variable dictionary	6	
Whitespace/readability	6	
Values properly transferred between functions	10	
Program Function		
User interface	20	
Results	20	
	Total Pts:	/134