

ME 1020 Engineering Programming with MATLAB

Problem 7.1:

1. The following list gives the measured gas mileage in miles per gallon for 22 cars of the same model. Plot the absolute frequency histogram and the relative frequency histogram.

| | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|
| 23 | 25 | 26 | 25 | 27 | 25 | 24 | 22 | 23 | 25 | 26 |
| 26 | 24 | 24 | 22 | 25 | 26 | 24 | 24 | 24 | 27 | 23 |

Go to the following webpage to download the data for this problem:

www.cs.wright.edu/~sthomas/prob7_1.xlsx

```
% Problem 7.1
clear
clc
disp('Problem 7.1: Scott Thomas')

mpg = xlsread('prob7_1');
x = 22:27;
tests = length(mpg);
relfreq = [2 3 6 5 4 2]/tests;

%Absolute Frequency Plot:
%hist(mpg,x)
%xlabel('Miles/Gallon'), ylabel('Absolute Frequency')
%title('Problem 7.1: Scott Thomas')

%Relative Frequency Plot:

bar(x,relfreq)
xlabel('Miles/Gallon'), ylabel('Relative Frequency')
title('Problem 7.1: Scott Thomas')
```

Problem 7.1: Scott Thomas

