

THIS WEEK - FINISH READING CHAP 3
(2 of 5) QUIZ FRIDAY

HW 2 DUE THURS 6pm? DOUBLE-CHECK TIME
SOLNS POSTED JUST AFTER.

THIS WEEKEND - START READING CHAP 4

TOPICS IN CHAP 3 INCLUDE

input → USE p_input TO "PUBLISH"

disp → DISPLAY TEXT ON SCREEN

fprintf → TO "FILE" PRINT FORMATTED TEXT & VALUES

sprintf → "STRING" OF CHARACTERS PRINT " " "

plot ; write/load from disk file ; user-defined functions

USE TO ADD
VARIABLE VALUES
TO PLOT TITLES

tt = sprintf('...')
title(tt)

→ NOT NOW

$a = 4; b = 3;$

USED MULTIPLE TIMES

$C = 2 * a + b \wedge (1/a)$

INSTEAD WRITE & CALL A FUNCTION

$C = \text{myFunc}(a, b)$

USE OR "CALL" FUNCTION

$f = \text{myFunc}(d, e)$

myFunc.m

function

KEYWORD MUST BE HERE

$z = \text{myFunc}(x, y)$

NAME OF FUNC MUST BE FUNC FILE NAME

LIST OF INPUTS "ARGUMENTS"

"LOCAL" VARIABLES ONLY KNOWN TO FUNCTION

VARIABLE VALUE RETURNED BY FUNC.

$z = 2 * x + y \wedge (1/x)$

MAIN M-FILE

%%
%%

a = 4; b = 6;

c = myFunc(a, b)

≈

type myFunc

PROBLEM WITH USER-WRITTEN FUNCTION

ADD THIS LINE WITH "type" & FUNCTION NAME
SO I CAN SEE YOUR FUNCTION "LISTING"
IN PUBLISHED PDF

myFunc.m
FILE

function z = myFunc(x, y)

≈

z = ≈

cos(ANGLE In RADIANS)

cosd(ANGLE In DEGREES)

similar for sin, sind, etc.

2π RADIANS = 360 DEGREES

```
a = p_input('enter a: ')
x = linspace(0,a*pi,50);
y = sin(x);
plot(x,y)
tt = sprintf('a = %5.2f',a)
title(tt)
ylabel('y values')
xlabel('x values')
```

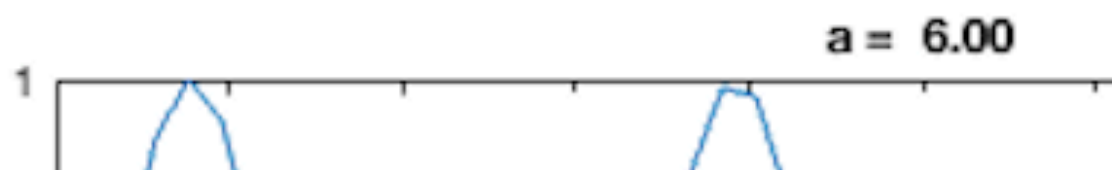
enter a: 6

a =

6

tt =

a = 6.00



```
Editor - /Users/richardherz/Desktop/matlab_201... x
test.m x myFuncNa
1 % add var
2
3 a = p_inp
4 x = linspace(0,a*pi,50);
5 y = sin(x);
6 plot(x,y)
7 tt = sprintf('a = %5.2f',a)
8 title(tt)
9 ylabel('y values')
10 xlabel('x values')
11
```

enter a:
5|
OK Cancel

Command Window

