

Name _____ Login name _____

Lecture Section: _____ Lab Section: _____ TA _____

This is an example of a block

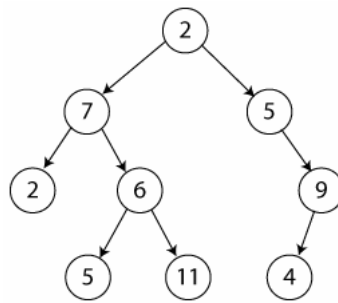


Figure 1: Example Figure

1. This is a problem that does not have a correct answer - used for system testing 1

- (a) answer 1
- (b) answer 2
- (c) fixed answer 3
- (d) fixed answer 4
- (e) answer 5
- (f) fixed answer 6

The following problems relate to logical situations.

2. Which expression tests whether variable x is between (but not the same as) the values 5 and 10.

- (a) $5 < x < 10$
- (b) $5 \leq x \leq 10$
- (c) $5 < x \ \& \ x > 10$
- (d) $x < 10 \ \& \ 5 < x$
- (e) none of these

3. Which of the following is a MATLAB expression for testing “ x is outside the range from 3 to 5” (the range includes 3 and 5)?

- (a) $3 > x \ \& \ x > 5$

- (b) $3 > x \mid x < 5$
- (c) $3 > x \mid x > 5$
- (d) cannot be expressed in MATLAB
- (e) none of the above

4. In MATLAB the value 1 is true, and true is:

- (a) there are no boolean types in MATLAB
- (b) any value that isn't zero
- (c) 1
- (d) 0
- (e) none of the above

The following problems relate to matrix operations done in matlab.

5. Suppose you have a matrix $x = \begin{bmatrix} 1 & 2 & 3 & 4 \\ 3 & 4 & 5 & 6 \end{bmatrix}$. Which of the following will evaluate to $\begin{bmatrix} 3 \\ 5 \end{bmatrix}$?

- (a) $x(3)$
- (b) $x(3,:)$
- (c) $x[:,3]$
- (d) $x(:,3)$
- (e) none of these

6. Which of the following will extract $[5 \ 6 \ 7]$ from the matrix m shown?

`>> m = [3 4 5 6 7 8];`

- (a) $m(3:5)$
- (b) $m(5:end-1)$
- (c) $m(end-1:5)$
- (d) $m[5, 7]$
- (e) none of these

7. Suppose you have a matrix $x = \begin{bmatrix} 1 & 2 & 3 & 4 & 5 & 6 \\ 1 & 2 & 3 & 4 & 5 & ? \end{bmatrix}$. Which of the following will evaluate to $\begin{bmatrix} 1 & 2 & 3 & 4 & 5 \end{bmatrix}$?

- (a) $x(1,end)$
- (b) $x(end-1)$
- (c) $x(1,end-1)$
- (d) $x(1,1-end)$
- (e) none of these

8. Suppose you have a matrix $x = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{bmatrix}$. Which of the following will evaluate to 6?

- (a) $x(3,2)$
- (b) $x(1,2)$
- (c) $x[2,2]$
- (d) $x[2,3]$

(e) none of these

9. Consider the function f:

```
function answer = f(a)
answer = a+2;
end
```

What will be in x after the command:

```
>> x = f(4);
```

(a) 6

(b) 4

(c) f(4)

(d) error

(e) none of these

10. Consider the function f:

```
function [] = f(x)
output = 7;
end
```

What will be in x after the command:

```
>> x = f(3);
```

(a) 7

(b) f(7)

(c) ans

(d) error

(e) none of these

Did you remember to write your name on the first page? Did you attempt to answer every question?
Have a good holiday.