

**ENGR 0711 - Fall, 2009**  
**Assignment 3**  
**Due: September 14, 2008**

Name \_\_\_\_\_ Group # \_\_\_\_\_

**This is an individual Assignment. Each member of the group must complete the assignment. Using Matlab answer the following questions. It is suggested that you answer all the problems at the end of sections 4.4, 4.6, 4.7, and 4.8. Then record the solutions for the following questions:**

1. What is  $((4+3-2*4)/5)^2+4/5^{(2*3-4+7*2)/9}$
  
2. What is  $\log_{10}(5)$  and  $\ln(5)$
  
3. What is  $4^6$  and  $e^6$
  
4. Let  $\theta = 56$  radians and  $\beta = 56$  degrees, what is  $\sin(\theta)$  and  $\cos(\beta)$
  
5. What is the value of 3.4, 4.6, -2.3 and -2.8 using the following functions:  $\text{ceil}(x)$ ,  $\text{fix}(x)$ ,  $\text{floor}(x)$ ,  $\text{round}(x)$
  
  
  
  
  
  
  
  
  
  
6. Given  $x = [1 \ 3 \ 0 \ 2]$  and  $y = 4$ , what is the result of  $x \wedge y$ ?
  
7. Given  $x = [1 \ 3 \ 0 \ 2]$  and  $y = 4$ , what is the result of  $x .\wedge y$ ?
  
  
  
  
  
  
  
  
  
  
8. Given  $x = [3 \ 2; 1 \ 0]$  and  $y = [1 \ 2; 3 \ 4]$ , what is the result of  $\text{max}(x, y)$ ?

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9. Given A, B and C, determine the result of the following.

$$A = [2 \ -1 \ 3] \quad B = [3 \ 5 \ 2] \quad C = \begin{matrix} -2 \\ -5 \\ -1 \end{matrix}$$

$$A * C = \quad A - B =$$

$$3 * A = \quad B * C =$$

10. The following information is in the variable data

$$\text{Data} = \begin{matrix} 2 & 3 & 4 & 7 \\ 1 & 1 & 0 & 9 \\ 4 & 2 & 3 & 1 \end{matrix}$$

Write the Matlab commands that will set the following 3 variables equal to the indicated portion of data:

$$Y = \begin{Bmatrix} 4 \\ 0 \\ 3 \end{Bmatrix} \quad \text{Matlab Command: } Y =$$

$$Z = \begin{bmatrix} 1 & 0 & 9 \\ 2 & 3 & 1 \end{bmatrix} \quad \text{Matlab Command: } Z =$$

$$S = [2 \ 3 \ 1] \quad \text{Matlab Command: } S =$$

What is sum(Z)?

What is Y \* S?

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11. Given A, B and C, determine the result of the following.

$$A = \begin{bmatrix} 2 & -1 & 3 \end{bmatrix}$$

$$B = \begin{bmatrix} 3 & 5 & 2 \end{bmatrix}$$

$$C = \begin{bmatrix} -2 \\ -5 \\ -1 \end{bmatrix}$$

$$A * C =$$

$$A - B =$$

$$3 * A =$$

$$A .* B =$$

$$B.^A =$$

**Deliverable:**

Staple the individual assignments from each member of the group, and turn in the set. We will select one of them from the group and grade it. That grade will be the group grade.