## HOMEWORK 9

\# Question ID Objective

1 2.1.1
Compute sums, products, and scalar products of matrices.

2 2.1.3
Compute sums, products, and scalar products of matrices.

3 2.1.5
Compute sums, products, and scalar products of matrices.
$4 \quad 2.1 .7$
Demonstrate understanding of theorems and properties about matrix operations and transposes.
$5 \quad 2.1 .9$
Given information about a matrix product $A B$ and one factor A, determine properties or entries of $B$.
$6 \quad 2.1 .11$
Given information about a matrix product $A B$ and one factor A, determine properties or entries of $B$.

7 2.1.12
Given information about a matrix product $A B$ and one factor $A$, determine properties or entries of $B$.

Given information about a matrix product $A B$ and one factor $A$, determine properties or entries of $B$.

## HOMEWORK 10

| \# | Question ID | Objective |
| :---: | :--- | :--- |
| 1 | 2.2 .1 | Find the inverse of a <br> matrix. |
| 2 | 2.2 .7 | Use the inverse of a matrix <br> to solve linear systems. |
| 3 | 2.2 .9 | Prove theorems and <br> demonstrate concept <br> knowledge about the <br> invertability of matrices. |
| 4 | 2.2 .17 | Prove theorems and <br> demonstrate concept <br> knowledge about the <br> invertability of matrices. |
| 5 | 2.2 .21 | Prove theorems and <br> demonstrate concept <br> knowledge about the <br> invertability of matrices. |
| 6 | 2.2 .24 | Prove theorems and <br> demonstrate concept <br> knowledge about the <br> invertability of matrices. |
| 7 | 2.2 .31 | Find the inverse of a <br> matrix using row <br> reduction. |
| 8 | 2.3 .3 | Determine if a matrix is <br> invertible. |
| 10 | 2.3 .7 | Determine if a matrix is <br> invertible. |
| Desermine if a matrix is |  |  |
| invertible. |  |  |

## HOMEWORK 11

| \# | Question ID | Objective |
| :---: | :--- | :--- |
| 1 | 2.8 .1 | Explain why a set is not a <br> subspace of $\mathrm{R}^{\wedge} \mathrm{n}$. |
| 2 | 2.8 .5 | Find a vector in a vector <br> space, or determine if a <br> vector is in a vector space. |
| 3 | 2.8 .8 | Find a vector in a vector <br> space, or determine if a <br> vector is in a vector space. |
| 4 | 2.8 .9 | Find a vector in a vector <br> space, or determine if a <br> vector is in a vector space. |
| 5 | 2.8 .12 | Demonstrate <br> understanding of concepts <br> around the null and <br> column spaces of a matrix. |
| 6 | 2.8 .13 | Find a vector in a vector |
| 7 | 2.8 .17 | space, or determine if a <br> vector is in a vector space. |
| 8 | 2.8 .23 | Determine if sets of <br> vectors are a basis for $\mathrm{R}^{\wedge} \mathrm{n}$. |
| 9 | 2.8 .31 | Find the column space and <br> the null space of a matrix. |
| 10 | 2.8 .33 | Demonstrate <br> understanding of concepts <br> around the null and <br> column spaces of a matrix. |
| Demonstrate |  |  |
| understanding of concepts |  |  |
| around the null and |  |  |
| column spaces of a matrix. |  |  |

