## HOMEWORK 34

\# Question ID Objective

1 6.5.1
Use normal equations to find least-squares solutions of systems.

2 6.5.3
Use normal equations to find least-squares solutions of systems.

3 6.5.5
Use normal equations to find least-squares solutions of systems.
$4 \quad 6.5 .10$
Use orthogonal projections to find least-squares solutions of systems.
$5 \quad 6.5 .11$

Use orthogonal projections to find least-squares solutions of systems.

## HOMEWORK 35

## \# Question ID Objective

1 6.7.1
Compute inner products and vector norms.

2 6.7.3
Compute inner products and vector norms.

3 6.7.5
Compute inner products and vector norms.

4 6.7.7
Find the orthogonal projection of a vector onto a subspace.
$5 \quad 6.7 .9$
Find the orthogonal projection of a vector onto a subspace.
$6 \quad 6.7 .10$
Find the orthogonal projection of a vector onto a subspace.

## HOMEWORK 36

\# Question ID Objective
1 7.1.1 Determine if a matrix is symmetric.
2 7.1.4 Determine if a matrix is symmetric.
3 7.1.5 Determine if a matrix is symmetric.
Determine if a matrix is orthogonal.
5 7.1.10 Determine if a matrix is orthogonal.
$6 \quad 7.1 .12$ Determine if a matrix is orthogonal.
7 7.1.15 Orthogonally diagonalize a matrix.
$8 \quad 7.1 .17$ Orthogonally diagonalize a matrix.

## HOMEWORK 37

\# Question ID Objective
1 7.1.23 Orthogonally diagonalize a matrix.
2 7.1.27 Demonstrate properties ofsymmetric matrices.
3 7.1.29Demonstrate properties ofsymmetric matrices.
4 7.1.32 Demonstrate properties of symmetric matrices.
5 7.1.33
Construct a spectral decomposition of a matrix.

