

# HOMEWORK 31

# Question ID Objective

1	6.2.2	Determine whether vector sets are orthogonal.
2	6.2.6	Determine whether vector sets are orthogonal.
3	6.2.12	Compute and use orthogonal projections.
4	6.2.13	Compute and use orthogonal projections.
5	6.2.15	Compute and use orthogonal projections.
6	6.2.17	Determine whether vector sets are orthonormal.
7	6.2.21	Determine whether vector sets are orthonormal.

## HOMEWORK 32

#	Question ID	Objective
1	6.3.1	Write an orthogonal decomposition of a vector.
2	6.3.2	Write an orthogonal decomposition of a vector.
3	6.3.4	Determine an orthogonal projection given an orthogonal set.
4	6.3.8	Write an orthogonal decomposition of a vector.
5	6.3.12	Use the best approximation theorem.
6	6.3.13	Use the best approximation theorem.
7	6.3.15	Use the best approximation theorem.
8	6.3.17	Determine an orthogonal projection given an orthonormal basis.

## HOMEWORK 33

#	Question ID	Objective
1	6.4.1	Use the Gram-Schmidt process to produce an orthogonal basis for a subspace.
2	6.4.5	Use the Gram-Schmidt process to produce an orthogonal basis for a subspace.
3	6.4.8	Use the Gram-Schmidt process to produce an orthogonal basis for a subspace.
4	6.4.10	Use the Gram-Schmidt process to produce an orthogonal basis for a subspace.
5	6.4.14	Find a QR factorization of a matrix.