

HOMEWORK 14

#	Question ID	Objective
1	3.2.1	Demonstrate understanding of the properties of determinants.
2	3.2.4	Demonstrate understanding of the properties of determinants.
3	3.2.5	Calculate determinants using row reduction.
4	3.2.7	Calculate determinants using row reduction.
5	3.2.15	Demonstrate understanding of the properties of determinants.
6	3.2.18	Demonstrate understanding of the properties of determinants.
7	3.2.19	Demonstrate understanding of the properties of determinants.
8	3.2.22	Use determinants to determine if a matrix is invertible.
9	3.2.23	Use determinants to determine if a matrix is invertible.
10	3.2.26	Use determinants to determine if a matrix is invertible.

HOMEWORK 14

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HOMEWORK 15

#	Question ID	Objective
1	3.3.1	Use Cramer's rule to compute the solutions of systems of equations.
2	3.3.5	Use Cramer's rule to compute the solutions of systems of equations.
3	3.3.7	Use Cramer's rule to compute the solutions of systems of equations.
4	3.3.11	Compute the adjugate of a matrix and use it to find the inverse of the matrix.
5	3.3.12	Compute the adjugate of a matrix and use it to find the inverse of the matrix.
6	3.3.21	Find the area of a parallelogram or parallelepiped using matrix determinants.
7	3.3.23	Find the area of a parallelogram or parallelepiped using matrix determinants.
8	3.3.27	Find the area of a parallelogram or parallelepiped using matrix determinants.
9	3.3.29	Derive formulas for areas and volumes using matrix determinants.

HOMEWORK 16

#	Question ID	Objective
1	4.1.2	Demonstrate that a given set is or is not a vector space.
2	4.1.5	Determine whether a given set is a subspace.
3	4.1.8	Determine whether a given set is a subspace.
4	4.1.11	Find a spanning set for a subspace.
5	4.1.12	Determine whether a vector or matrix is in a given subspace.
6	4.1.13	Determine whether a vector or matrix is in a given subspace.
7	4.1.14	Determine whether a vector or matrix is in a given subspace.
8	4.1.18	Find a spanning set for a subspace.
9	4.1.21	Determine whether a vector or matrix is in a given subspace.
10	4.1.22	Determine whether a vector or matrix is in a given subspace.

HOMEWORK 17

#	Question ID	Objective
1	4.2.1	Determine whether a vector is in the null or column space of a matrix.
2	4.2.3	List vectors that span a null space.
3	4.2.6	List vectors that span a null space.
4	4.2.8	Determine whether or not a given space is a vector space.
5	4.2.9	Determine whether or not a given space is a vector space.
6	4.2.11	Determine whether or not a given space is a vector space.
7	4.2.15	Find a matrix for which a given vector is in its column space.
8	4.2.17	Find k such that a given null or column space is a subspace of \mathbb{R}^k .
9	4.2.23	Determine whether a vector is in the null or column space of a matrix.
10	4.2.24	Determine whether a vector is in the null or column space of a matrix.
11	4.2.26	Understand concepts related to null and column spaces and linear transformations.