

Algebra II Curriculum Map
2013-2014

Focus Topic 5 – Matrices
(2 Weeks)

I.1.a – Add, subtract, and multiply matrices.

Learning Target(s):

- I can add matrices.
- I can subtract matrices.
- I can multiply matrices.

I.1.b – Use addition, subtraction, and multiplication of matrices to solve real-world problems.

Learning Target(s):

- I can use addition of matrices to solve real-world problems.
- I can use subtraction of matrices to solve real-world problems.
- I can use multiplication of matrices to solve real-world problems.

I.1.c – Calculate the determinant of 2×2 and 3×3 matrices.

Learning Target(s):

- I can calculate the determinant of 2×2 matrices.
- I can calculate the determinant of 3×3 matrices.

I.1.d – Find the inverse of a 2×2 matrix.

Learning Target(s):

- I can find the inverse of 2×2 matrix.

I.1.e – Solve systems of equations by using inverses of matrices and determinants.

Learning Target(s):

- I can solve systems of equations by using inverses of matrices and determinants.

I.1.f – Use technology to perform operations on matrices, find determinants, and find inverses.

Learning Target(s):

- I can use technology to perform operations on matrices.
- I can use technology to find determinants.
- I can use technology to find inverses.

D.1.c – Solve algebraically a system containing three variables.

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Learning Target(s):

- I can solve algebraically a system containing three variables.

Vocabulary: matrix, determinant, inverse matrix, three-variable system

Instructional Resources:

- Formative Assessment Lessons for Mathematics: <http://map.mathshell.org/materials/lessons.php>
- Formative Assessment Tasks for Mathematics: <http://map.mathshell.org/materials/tasks.php>
- Illustrative Mathematics: <http://www.illustrativemathematics.org/standards/k8>
- NCTM Illuminations: <http://illuminations.nctm.org/>
- PARCC: <http://www.parcconline.org/mcf/mathematics/parcc-model-content-frameworks-browser>
- Inside Mathematics: <http://insidemathematics.org/index.php/mathematical-content-standards>
- New York State: <http://www.engageny.org/mathematics>
- Lessons from *Algebra 2 Connections*: 7.1.3 – 7.1.4 (D.1.c)
- Lessons from *Algebra 2 Connections*: 7.3.1 – 7.3.5 (I.1.a, I.1.b, I.1.c, I.1.d, I.1.e, I.1.f)
- Checkpoints from *Algebra 2 Connections*: Number 18 (D.1.c)

Assessment Notes:

- The Focus Topic will have 3 multiple choice questions on the proficiency assessment.