

- 1) **Matrix Vocabulary:** Define each of the following.
  - a) Matrix
  - b) Element
  - c) Square matrix
  - d) Identity matrix
  - e) Row
  - f) Column
  - g) Dimensions of a matrix
  - h) Scalar
  
- 2) **Matrix Operations:** Explain how to perform each operation with matrices. You may include examples.
  - a) Add matrices
  - b) Subtract Matrices
  - c) Multiply by a scalar
  - d) Multiply two matrices
  - e) Explain how to know if an answer is not possible (addition/subtraction and multiplication)
  
- 3) **Inverse Matrices:**
  - a) Explain how to find the determinant of a 2x2 matrix.
  - b) Explain how to find the inverse of a 2x2 matrix.
  - c) When does a matrix **not** have an inverse?
  - d) What is the result of multiplying a matrix and its inverse?
  
- 4) **Solving Systems of Equations with Matrices:**
  - a) Explain how to write a matrix equation for a system of equations.
  - b) Explain how to solve a system of equations using matrices.

## Unit 1: Matrices

- Log in to your IXL account.
- Practice **10** out of the 15 the skills listed below. Your score for each skill will be computed as follows: 90 or greater A; 80 – 89 B; 70-79 C; 50-69 D; 0-49 F. Your total grade for the assignment will be the average of the **10** grades earned on each skill.
- The assignment is due *January 22, 2019 at 11:59 pm*

**IXL Algebra 2 Skills:****Matrices**

- G.1** Matrix vocabulary
- G.2** Matrix operation rules
- G.3** Add and subtract matrices
- G.4** Multiply a matrix by a scalar
- G.5** Add and subtract scalar multiples of matrices
- G.6** Multiply two matrices
- G.7** Simplify matrix expressions
- G.8** Properties of matrices
- G.9** Solve matrix equations
- G.10** Determinant of a matrix
- G.11** Is a matrix invertible?
- G.12** Inverse of a matrix
- G.13** Identify inverse matrices
- G.18** Solve a system of equations using augmented matrices
- G.19** Solve a system of equations using augmented matrices: word problems