Unit Map 2012-2013

Monroe #2 - Orleans BOCES (Regional Collaboration)

Collaboration / Math 8* / Grade 8 (Math Regional Curriculum)

Wednesday, October 31, 2012, 1:46PM

Standard/Module: Proficiency with Equations: 8.EE.8 (F) (Week 13, 9 Weeks)

Stage 1: Desired Results

Standards Focus

- Major (70%) 8.EE.5
  8.EE.6
  8.EE.7
  8.F.1

Grade 8 Map

Standards

NYS: CCLS:Mathematics, NYS: 8th Grade , Expressions & Equations

8.EE Analyze and solve linear equations and pairs of simultaneous linear equations.

- 8. Analyze and solve pairs of simultaneous linear equations.
- 8a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.
- 8b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. For example, 3x + 2y = 5 and 3x + 2y = 6 have no solution because 3x + 2y cannot simultaneously be 5 and 6.
- 8c. Solve real-world and mathematical problems leading to two linear equations in two variables. For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.

Enduring Understandings	Essential Questions
1. Solve systems of linear equations.	1. How do you name the solution of a system of linear equations?
2. Apply systems of equations to solve real-world problems	2. How do you determine which method to use to solve a system of linear equations?

Critical Content

Systems of linear equations with

- One solution
- Infinitely many solutions
- No solutions

Skills	Vocabulary

1. Graph a linear equation 2. Solve one-variable equations 3. Analyze and solve pairs of simultaneous linear equations ▪ graphically ▪ Numerically (table) ▪ Algebraically (substitution and elimination) 4. Identify and label the point of intersection of a system of linear equations 5. Estimate solutions by graphing the equations 6. Solve simple cases by inspection	Tier 2: estimate, intersection, linear equation, simultaneous(ly), solution, solve, unique Tier 3: algebraically, elimination, substitution, system of linear equations

Stage 2: Assessment Evidence

Assessments

Pairs of linear equations
Formative: Test: Written

Students analyze pairs of linear equations to determine whether there is one solution, infinitely many solutions, or no solution and justify their conclusions. Students set up equations for a real-world problem and solve them graphically.

Stage 3: Learning Plan

Learning Activities	Resources
Students are shown a set of equations to graph that each have only solution, and draw conclusions about their commonalities. Students are shown a set of equations to graph that each have infinite solutions, and draw conclusions about their commonalities. Students are shown a set of equations to graph that each have no solution, and draw conclusions about their commonalities.	www.illustrativemathematics.org www.illuminations.nctm.org

Differentiation Opportunities

Graph by hand and using technology.

<< Previous Year

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