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|   | **Math 8 Unit 7** **Solving Systems of Equations**  |
| Volume 1 Issue 7 |  |
| **References**McGraw Hill Georgia Math 8 Volume 2:Chapter 9 – Lessons 3 & 4**Georgia Math Online:**[www.connectED.mcgraw-hill.com](http://www.connectED.mcgraw-hill.com)  | Dear Parents:Below you will find a list of concepts that your child will use and understand while completing Unit 7 Solving Systems of Equations. Also included are references, vocabulary and examples that will help you assist your child at home.Concepts Students will Use and Understand* Analyze and solve systems of linear equations.
* Understand and solve systems of equations graphically and algebraically, using technology as appropriate.
* Solve real-world problems leading to two linear equations with two variables.

Vocabulary**Coefficients:** a numerical factor in a term of an algebraic expression.**Intersecting Lines:** lines that have one point in common or all points in common.**Linear Combination Method:** a technique for solving a system of equations that involves combining two equations in order to eliminate one of the variables and solving for the remaining variable. Adding, subtracting, or multiplying a system of equations to help solve the system.**Simultaneous equations:** Another name for a system of Linear Equations**Substitution Method:** a technique for solving a system of equations that involves replacing one variable with an equivalent expression and solving for the remaining variable.**System of Linear Equations:** two or more equations that together define a relationship between variables usually in a problem situation. A system of equations can have no solution, one solution, or many solutions.Try <http://intermath.coe.uga.edu/> for additional help.[www.ceismc.gatech.edu/csi](http://www.ceismc.gatech.edu/csi)  |

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|  | **Example 1**Solve the system of equations using any method you choose. 2x + y= 7 x – 3y= 0 **Example 2**Determine whether either of the points (–1, –5) and (0, –2) is a solution to the given system of equations. *y* = 3*x* – 2*y* = –*x* – 6**Example 3**Gustav has 35 dimes and quarters that total $5.00. Solve a system of equations to find out how many dimes and how many quarters he has. |
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| **Links:**<http://www.purplemath.com/modules/systlin1.htm><http://www.regentsprep.org/Regents/math/ALGEBRA/AE3/indexAE3.htm><http://www.regentsprep.org/Regents/math/ALGEBRA/AE85/indexAE85.htm><http://www.regentsprep.org/Regents/math/ALGEBRA/AE9/indexAE9.htm>  | **Key****Example 1****(3,1)****Example 2****To check the given possible solutions, I just plug the *x*- and *y*-coordinates into the equations, and check to see if they work.****(-1, -5) is the only point that satisfies both equations so it is a solution.****Example 3** **Let d = # of dimes and q = # of quarters** **d + q = 35 and 0.1d + 0.25q = 5****He has 25 dimes and 10 quarters** |
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