

Finding solutions to Linear equations graphically and algebraically

Grade(s): 9

Content: Algebra I

Guiding Question How do I solve a system of equations?
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ILS Standards: 8A, 8B, 8C & 8D

College Readiness Standard(s):

Expressions, Equations and Inequalities – Write expression / equations for a single variable 24 - 27; Solve routine first – degree equations 20 – 23

Graphical Representation – Match linear graph with their equation; 24 - 27

Bell Ringer

Determine if the points are solutions of the equation $y = -3x + 2$ 1. (5, -13) 2. (-2,8) 3. (-3,7)
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Resources (Materials/Texts/Visual/Technology)

Projector, calculators, mobi board, laptop, clickers, practice problems

Objective(s) SWBAT: Students will be able to

Students will be able to determine if points are solutions to linear equations graphically and algebraically.

Instructional Strategies

<ul style="list-style-type: none">-Teacher will review solutions to linear equations as an introduction to finding solutions to systems of linear equations.-Teacher will give students 5 minutes to complete bell ringer (on powerpoint, including timer).-Teacher will use powerpoint to review answers to bell ringer.-Teacher will review objective and agenda.-Teacher will proceed through powerpoint demonstrating graphical solutions to linear equations (asking students questions through each example).-Teacher will proceed through powerpoint reviewing algebraic solutions for same equations used graphically.-Teacher will begin guided practice with students by presenting questions on powerpoint. Students will use clickers to answer questions. Teacher will use Mobi board to identify which students are answering correctly/incorrectly. If teacher does not have technology, teacher can use white boards asking students to hold up responses. If teacher does not have white boards and markers, teacher should ask students to record and check answers in notebooks.-Teacher should address misconceptions if students are not selecting correct answers.-Teacher should have students begin individual practice problems.-Teacher should walk around, answering questions and checking for understanding.
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Check for Understanding:

Bell Ringer, guided practice responses, individual practice

Closure:

Teacher will ask students to recall learning objective. Teacher will state why objective is important. Teacher will ask volunteer to state how to find solutions graphically and algebraically.

Homework:

Complete individual practice problems

LRE Modifications: Provide typed notes for special education students.