Lesson Plan

Solving Absolute Value Inequalities

**SC College and Career-Ready Standard Addressed:** FA.AREI.3\* Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.

In this lesson students will learn to solve absolute value equations algebraically and graphically.

**Video Introduction:**

 To begin the lesson, watch a YouTube [video](https://www.youtube.com/watch?v=MJRrJX0VvGI) by James Sousa on solving absolute value equations stop the video at the 6:20 mark. Graphing absolute value equations using the graphing calculator can be covered in the next lesson.

 (This video link is available from Mathispower4u by [James Sousa](http://www.mathispower4u.com/mathispower4u.com) is licensed under a [Creative Commons Attribution-ShareAlike 3.0 Unported License](http://creativecommons.org/licenses/by-sa/3.0/deed.en_US).

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**Whole Group Practice:**

Allow students to solve some examples of absolute value inequalities algebraically.

1. |2x +3| = 7 2. 2|5x-3| = 14 3. |x-5| = -8

If students need to watch additional examples after attempting to solve a couple of problems, use this [link](https://www.myopenmath.com/course/course.php?cid=1628&folder=0-1-7) from MyOpenMath.com to locate additional videos.

**Journaling:**

Ask student to reflect on the lesson and make a list similarities and differences between solving and interpreting absolute value equations and solving and interpreting linear equations.

**Individual or Paired Classwork or Homework:**

Classwork/homework is available through MyOpenMath.com. Provide students with the information below so they can access the classwork/homework or create your own course in MyOpenMath.com by copying this course “OER Algebra.”

**Registering**

At the Login page, if you are not currently registered as a student, click the "Register as a New Student" link. You will be asked to provide:

* A username. Your school may require something specific, like your student ID number.
* A password. You're asked to enter this twice.
* Your Firstname (Given name) and Lastname (Surname)
* Your email address
* You'll have the option to request an email notification when you receive a new message in the system.
* To enroll in the course, enter the Course ID: 32437 and the Enrollment key 232018

When you click "Sign Up", you will be taken back to the Login page so you can log in

Assign the [classwork/homework](https://www.myopenmath.com/assessment/showtest.php) by working in pairs or individually.

Note: Materials from myopenmath.com are for open use. See myopenmath.com for more information. You will need to sign up for an account to access the materials.