Factoring Algebraic Expressions

Lesson Overview

In this lesson, students will be introduced to factoring algebraic expressions. Student pairs will factor an expression and write the steps necessary to factor.

Standards Addressed

CCSS   7.EE.1 Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.

7.EE.2 Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, a + 0.05a = 1.05a means that "increase by 5%" is the same as "multiply by 1.05."

Disciplinary Literacy Best Practices

TIPS (Think-Ink-Pair-Share)

Lesson Plan

Time Required – One 50-minute Class Period

Disciplinary Vocabulary: factor

Materials Needed: A traditional worksheet of factoring problems

Engage
- o   Teacher reviews methods to find the greatest common factor of numbers.

Explore
- o   The teacher will pair students and assign each pair of students a particular expression from the worksheet to factor.
- o   The teacher will instruct the students to think about how they would factor the problem and to work with a partner to complete the assigned problem.
- o   Student pairs will dialogue and decide what approach they would use to complete the task.
- o   Students must come to a consensus on how best to write the steps necessary to factor the expression.
- o   Students will then square up with another pair assigned the same problem to compare results and get another perspective on how other students worked the same problem.

Explain
- o   Students will explain the steps they used to solve their problem.
- o   Students will collect the answers to the problems that they were not assigned from other students.
- o   The teacher will provide questioning as appropriate and redirect students who have misconceptions.
- o   Students will complete the all problems on the handout and turn in at the end of class.

Teacher Reflections and Biographical Information

By working in pairs, a student who is experiencing difficulty with a concept may understand it more if a peer explains it to them. Another way to individualize student responses and have student reflect on their learning would be to use an exit ticket and have the each student write a letter to another student explaining the factoring process.

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