



Title: “FOIL Method”

Students will review how to multiply binomials using the FOIL Method.

Student Objectives

Students will review the FOIL Method by working out problems in an online worksheet activity. Then they will take an online assessment (SMART Response quiz through Lumio).

Teacher Technology Skills Needed

- In a SMART Notebook file, teachers need to use ink tools to do a Lesson Recording video, embedded on a lesson page.
- If needed, they should use the Write Equation Tool (Math Ink) to convert their ink objects into text.
- Finally, teachers should be familiar with the Lumio platform for connecting to students, assigning handout pages and conducting a SMART Response assessment.

Materials

SMART Notebook Lesson “FOIL Method” from our ERC Lesson library, found here: <https://otis.teq.com/erc/item/35>.

Lumio: <http://suite.smarttech.com> or lum.io with teacher login.

Standards

CCSS.Math.Content.HSA-APR.A.1 Perform arithmetic operations on polynomials. 1. Add, subtract, and multiply polynomials and recognize that the result of the operation is also a polynomial.

NYS - A.A.13 Add subtract and multiply monomials and polynomials

Procedure

1. Start with Notebook Lesson page 1, the title page. Note that this is the ERC Lesson file I’ll be using. The title is “Multiplying Binomials”, but we are focusing on the strategy called the FOIL Method.
2. NB page 4 --- comment that we are using the color coding shown here to keep track of our steps. Explain the acronym FOIL.



3. NB page 5 --- This page has an embedded Lesson Recording. Play it and narrate over it, explaining the steps and how to determine the final answer.
4. NB pages 6 and 7 --- show quickly and mention that these pages will be done by students from my online classroom: Lumio.
5. NB page 8 --- click the link here to go to my online classroom <http://suite.smarttech.com>.
6. Locate the "FOIL Method" lesson and click on START. Discuss how this Notebook file has been already uploaded into your Lumio Library. Show the title page, then jump to ...
7. Lumio page 3 --- click on STUDENT PROGRESS and discuss how the students did on their practice problem.
8. Lumio page 4 --- same
9. Lumio page 5 --- This is the SMART Response quiz. Show the results.

Extension Activities

With a live connection including students on Lumio, the teacher can ask students to work out problems using the ink tools. To show this live, the teacher can make this page a collaborative activity so the rest of the class can see the inking done live.

Another idea is to have a live (Office Hours) meeting with students, and allow students to share their screen while showing in Lumio how to work the problems. This can be done in a Google Meet where the teacher is screen sharing a Notebook file and the students can run through the Response quiz live during this time. Since they are in a live meeting, allow students to unmute their microphones and ask questions or explain their thinking.