# MathLinks 9 Chapter 5 Polynomial Game Teaching Notes

#### Suggested Timing

30-40 minutes

#### Materials

- · set of algebra tiles per pair of students
- stopwatch (optional)

#### Specific Outcomes

PR7 Model, record and explain the operations of multiplication and division of polynomial expressions (limited to polynomials of degree less than or equal to 2) by monomials, concretely, pictorially and symbolically.

## Planning Notes: Polynomial Game

With the class, read through the instructions for the game. Have students find a partner. Explain to students that they should start by laying out all the algebra tiles within reach of each player. You may wish to have them use stopwatches. If so, have them decide on the number of seconds they will both have to construct their models. Also, have students decide beforehand how they will handle any disputes about whether a response is correct or incorrect. If they are using a stopwatch, they would then begin by starting the stopwatch and creating their models at the same time. Each player must stop when the agreed upon time is up. Using scrap paper, players write their polynomial expressions for each model. Then, they write the sum. When both players are done, they compare their responses.

You may wish to have students play the variation on the game, which involves subtraction instead of addition.

### **Meeting Student Needs**

- Encourage students to use a wide variety of polynomial expressions.
- Have students play the game with a classmate of similar ability.

#### Gifted and Enrichment

 Encourage students to model more complex polynomials expressions with three terms.

Assessment	Supporting Learning
Assessment for Learning	
Polynomial Game Have students play the game with a partner.	<ul> <li>Instead of using a stopwatch, students may be given as much time as necessary to complete each model.</li> </ul>