# Multiplication with Area Models

∭AREA MODEL NOTE∭

#### Objectives:

Using the **AREA MODEL** aplet, the student will multiply first degree monomials and binomials.

### Functionality:

When the student presses **START**, the **AREA MODEL NOTE** will be displayed.

The student should then view the **SKETCH** for a visual explanation.

After viewing the note and sketch, **VIEWS** should be pressed to adjust the coefficients and constants, to view the area model, and to expand.

Adjust A, B, C, D prompts the student, through a series of adjust boxes, to enter values for A, B, C, and D in the expression (Ax+B)(Cx+D).

View Area displays the expression and the area model.

**Expand** displays the solution to the multiplication shown with the area model.

# This area model llustrates ultiplication of the inear factors (AX+B)(CX+D). ress [VIEWS] to PAGE 🔻 A...Z BKSP (X+1)(X+2) UNIT→□ $X \rightarrow \Box$ ×+1 X2+3X+2 X₂ → 🗖 STOP NEWP A PAGE TEXT DRAW UN]Adjust A,B,C,D 2) View Area Expand Start (AN(L DK 🏼 (AX+B) ADJUST A 🚟 CANCL DK (3X+2)(2X+3)

(3X+2)(2X+3)	
6*X²+13*X+6	

### Additional Exploration:

At the HOME screen, use POLYFORM to expand. POLYFORM can be typed in the edit line or found by pressing **MATH**, **P**. Syntax is POLYFORM(*expression*, *variable*). Eg:Expand (x+2)(2x-1)







Programs associated with this aplet: .AR.E, .AR.D, .AR.AB, .AR.SV