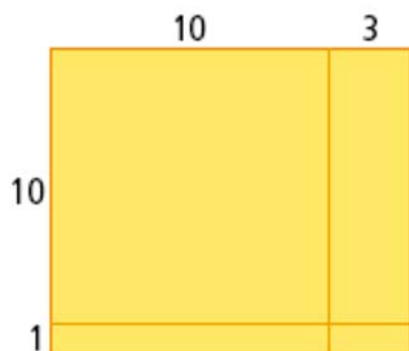


3.2 Polynomial Multiplication

Exploring Polynomial Multiplication

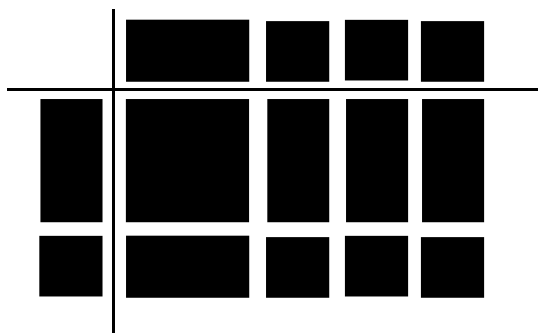
Multiply: $13 \times 11 =$

Use the area model below to multiply 13×11 :



Use algebra tiles to determine the product:

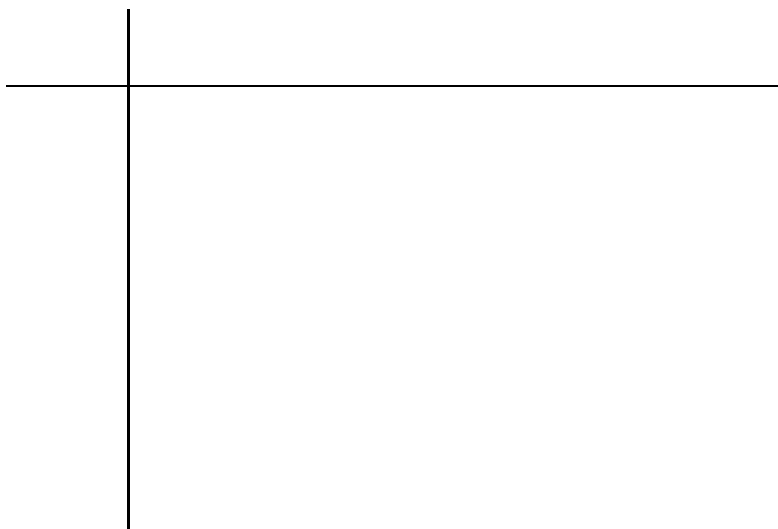
$$(x + 3)(x + 1)$$



$$(x + 5)(x - 2)$$



$$(2x + 4)(3x - 1)$$



Can also use the distributive property to multiply polynomials:

Ex. Simplify:

$$(x - 2)(2x + 1)$$

$$(x - 3)(x - 5)$$

$$(5m - 1)(2m - 6)$$

$$(b - 4)^2$$

Can be extended to multiplication of larger polynomials:

Ex. Simplify:

$$(x + 2)(2x^2 - 5x + 1)$$

$$(q^2 + q - 2)(2q^2 - 3q + 1)$$