Math 9 *Name:*_____

5.5 – Multiplying Polynomials *Date:* _____

The expression $4(3x)$ is a **PRODUCT** statement. It can be represented in the following ways:

Algebraically

$4(3x) =$

Algebra Tiles Model

$3x =$ → $4(3x) =$

Rectangle Area Model

$4(3x)$ can also be interpreted as the **AREA** of the rectangle:

The expression $4(3x+2)$ is also a **PRODUCT** statement. It can be represented in the following ways:

Algebraically

$4(3x+2) =$

Algebra Tiles Model

$3x+2=$ → $4(3x+2) =$

Rectangle Area Model

$4(3x+2)$ can also be interpreted as the **AREA** of the rectangle:

Determine the product: $-4(3x)$

Algebra Tiles:

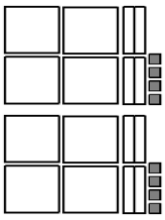
Algebraically:

Determine the following products:

$3(-2m+4)$ $-2(-n^2+2n-1)$

Determine which of the following products is modelled by the algebra tiles.

$2(8x^2+8x-8)$ $2(4x^2+4x+4)$



$2(4x^2+4x-4)$ $-2(-4x^2-4x+8)$

The expression $(2x)(4x+1)$ is the product of a monomial and a binomial. It can be interpreted:

Algebraically

$(2x)(4x)=$

Algebra Tiles Model

Rectangle Area Model

Determine the following products using Algebra Tiles, Rectangle Area model and algebraically:

$2x(3x+4)$

$-4c(2c-3)$

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

Determine the product represented by the following Algebra Tiles model: