

Warm-up: **Multiplying two Monomial**

$$1.) (12x^2)(2x^3)$$

$$24x^5$$

$$2.) (9p)(5)$$

$$45p$$

7.2 Multiplying Polynomials

Multiply Monomial and Trinomial

Ex 1. What is the product of $-4x^3$ and $(x^2 - 3x - 4)$

Using Distributive property

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

$$-4x^5 + 12x^4 + 16x^3$$

Using table

	x^2	$-3x$	-4
$-4x^3$	$-4x^5$	$+3x^4$	$+16$

Try it.....

Find the product.

a. $-2x^2$ and $x^2 + 3x + 4$

b. $-4x(2x^2 - 3x + 5)$

$$-2x^4 - 6x^3 - 8x^2$$

$$-8x^3 + 12x^2 - 20$$

Algebra 1: 7.2 Multiplying Polynomials

Multiply two Binomials

Ex. Find Product of $(x+5)(x+8)$

Using Distributive property

$$\begin{aligned} & (x+5)(x+8) \\ & x^2 + 8x + 5x + 40 \\ & x^2 + 13x + 40 \end{aligned}$$

Using table

	x	8
x	x^2	$8x$
5	$5x$	40

$$x^2 + 13x + 40$$

what is the area of rectangle, With length $(2x+1)$ units and width $(x+3)$ units?

Using Distributive property

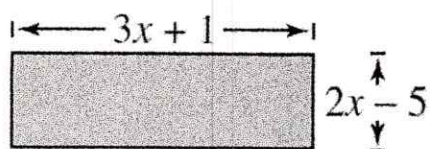
$$(2x+1)$$

Using table

	x	3
$2x$		
1		

Try it.....

Find the area of rectangle



Multiply Trinomial and a Binomial

Ex. Find product of $(x^2 + 2x - 1)$ and $(3x + 4)$

Using Distributive property

$$\begin{aligned}
 &(x^2 + 2x - 1)(3x + 4) \\
 &x^2(3x + 4) + 2x(3x + 4) - (3x + 4) \\
 &\underline{3x^3 + 4x^2} + \underline{6x^2 + 8x} - \underline{3x - 4} \\
 &3x^3 + 10x^2 + 5x + 4
 \end{aligned}$$

Try it... $(a^3 + 3a^2 + 1)$ and $5a + 2$

Using table

	x^2	$2x$	-1
$3x$	$3x^3$	$6x^2$	$-3x$
4	$4x^2$	$8x$	-4

$$3x^3 + 10x^2 + 5x - 4$$

