

Do Now

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

$$(2x+3)(2x+3)$$

$$4x^2 + 12x + 9$$

2. $(-x - 7)(2x + 1)$

$$-2x^2 - 15x - 7$$

3. $(-x + 3)^2$

$$x^2 - 6x + 9$$

4. $(x + 6)(x - 5)$

$$x^2 + x - 30$$

Mar 23-1:06 PM

Homework Answers

1) $-2x^2 + x + 6$

2) $-5x^2 - 22x - 8$

3) $2x^2 - 11xy + 15y^2$

4) $x^2 + 16x + 48$

5) $x^2 - 10x + 25$

6) $4x^2 - 49$

Mar 26-6:41 AM

Multiplying a Binomial by a Trinomial

Build a "Bigger Box"

EX: $(2x - 1)(3x^2 - 5x + 4)$

$$\begin{array}{c}
 \begin{array}{ccc}
 3x^2 & -5x & +4
 \end{array} \\
 \begin{array}{c}
 2x \\
 -1
 \end{array}
 \end{array}$$

$6x^3$	$-10x^2$	$8x$
$-3x^2$	$5x$	-4

$$\begin{aligned}
 & -13x^2 + 13x + 6x^3 - 4 \\
 & \boxed{6x^3 - 13x^2 + 13x - 4}
 \end{aligned}$$

Sep 19-1:12 PM

Trinomial times Trinomial

Use the distributive property THREE TIMES

Build a "Bigger Box"

EX: $(2x^2 + 10x + 1)(x^2 + x + 1)$

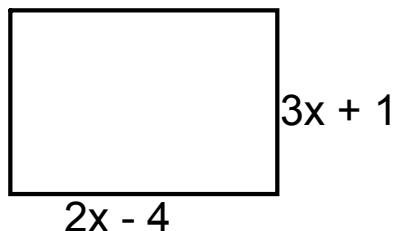
$$\begin{array}{c}
 \begin{array}{ccc}
 2x^2 & +10x & +1
 \end{array} \\
 \begin{array}{c}
 x^2 \\
 +x \\
 -1
 \end{array}
 \end{array}$$

$2x^4$	$10x^3$	x^2
$2x^3$	$10x^2$	x
$2x^2$	$10x$	1

$$\begin{aligned}
 & 2x^4 + 12x^3 + 13x^2 + 11x + 1
 \end{aligned}$$

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Find the area in simplest terms



$2x$	-4
$3x$	$6x^2$
1	$-12x$

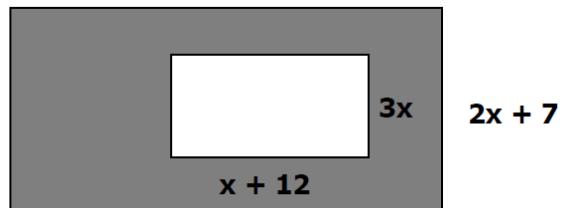
$$A = 6x^2 - 10x + 4$$

$$A = l \times w$$

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

Mar 29-6:35 AM

Find the area of the shaded region



$$\text{Area of the larger} - \text{Area of the smaller} = \text{Area of the shaded}$$

$$(9x-2)(2x+7) - 3x(x+12) =$$

$2x$	$18x^2 - 4x$
$+7$	$63x - 14$

$$18x^2 + 59x - 14 - 3x(x+12) =$$

$$18x^2 + 59x - 14 - 3x^2 - 36x =$$

$$15x^2 + 23x - 14$$

Sep 19-1:39 PM