

$2x+3$

$x+1$

$x-7$

x

Big Area

$$(2x+3)(x+1) - x(x-7)$$

$$2x^2 + 2x + 3x + 3 - x^2 + 7x$$

$$x^2 + 12x + 3$$

B
E
D
M
A
S

Sep 15-12:18 PM

$2x+3$ length

$x+3$ width

Area = $l \times w$

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

$$= 2x^2 + 6x + 3x + 9$$

$$= 2x^2 + 9x + 9$$

Sep 15-12:22 PM

Expand + Simplify

$$4x(x-3) = (4x \cdot x)(4x \cdot -3) = 4x^2 - 12x$$

$$4x^2(2x-6) = 8x^3 - 24x^2$$

$$(x+5)(x+3) = x^2 + 3x + 5x + 15 = x^2 + 8x + 15$$

$$(x-2)(x+6) = x^2 + 6x - 2x - 12 = x^2 + 4x - 12$$

Sep 15-12:22 PM

$$(x-3)^3 = (x-3)(x-3)(x-3)$$

$$x^2 - 3x - 3x + 9 (x-3)$$

$$x^2 - 6x + 9 (x-3)$$

$$x^3 - 6x^2 + 9x - 3x^2 + 18x - 27$$

$$x^3 - 9x^2 + 27x - 27$$

Sep 15-1:02 PM

Common factors

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

Factor

GCF $3(x+1)$

Factor completely

$2x+20$
 $2(x+10)$

$12x+18$ 2
 ~~$2(6x+9)$~~ 3
 6
 ~~$-3(4x+6)$~~
 $6(2x+3)$ *

Sep 15-1:09 PM

Factor

$6x-9$
 $3(2x-3)$

$4x^2+2x$
 $2x(2x+1)$

$6x^3+4x^2$
 $2x^2(3x+2)$

$3x^2+7x$
 $1x(3x+7)$
 $3x^3+7x^2+2x$
 $x(3x^2+7x+2)$

Sep 15-1:15 PM

$$8) -18n^3 + 14n$$

$$-2n(9n^2 - 7)$$

$$14) -24yx - 4y$$

$$4y(-6x - 1)$$

OR

$$-4y(6x + 1)$$

Sep 15-1:31 PM

Factoring Trinomials Part 1

[-x] expand:

two numbers when multiplied = 15 (3x5)

factoring

multiplying

$$(x+3)(x+5)$$

$$x^2 + 3x + 5x + 15$$

$$x^2 + 8x + 15$$

trinomial

the same two numbers when added together = 8 (3+5)

$$x^2 + 10x + 24$$

$$(x+6)(x+4)$$

$$= x^2 + 6x + 4x + 24$$

$$\checkmark x^2 + 10x + 24$$

Sep 15-2:14 PM

Factor: $x^2 - x - 12$

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

OR

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

$$x^2 + 6x - 27$$

$$(x - 3)(x + 9)$$

OR

$$(x + 9)(x - 3)$$

Sep 15-2:22 PM