Algebra 2

Topic 4 // Lesson 0

N: Key

D: P: 1 2 3 4 5 6

1. Multiply: $8(x^2 - 2x)$

$8x^2 - 16x$

2. Multiply: $8x(x^2 - 2x)$

$8x^3 - 16x^2$

3. Multiply: $3x(x^4 - 2x^5)$

$3x^5 - 6x^6$ or $-6x^6 + 3x^5$

4. Multiply: $x^2(x^5 + 2x^3)$

$x^7 + 2x^5$

5. Multiply: $3x^3(5x^2 - 7x)$

$15x^5 - 21x^4$

6. Multiply: $5x^2(2x^6 + 8x^3 - 2x)$

$10x^8 + 40x^5 - 10x^3$

7. Multiply: $-6x^2(3x^5 + 9x^2 + 5x)$

$-18x^7 - 54x^4 - 30x^3$

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8. Multiply: $(x+6)(x+2)$

$x^2 + 2x + 6x + 12 = x^2 + 8x + 12$

9. Multiply: $(x-6)(x-2)$

$x^2 - 2x - 6x + 12 = x^2 - 8x + 12$

10. Multiply: $(x+6)(x-2)$

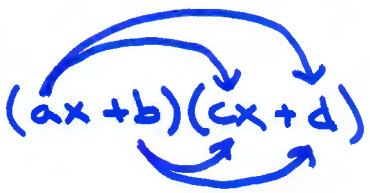
$x^2 - 2x + 6x - 12 = x^2 + 4x - 12$

11. Multiply: $(2x+6)(x+2)$

$2x^2 + 4x + 6x + 12 = 2x^2 + 10x + 12$

12. Multiply: $(x+5)(4x+3)$

$4x^2 + 3x + 20x + 15 = 4x^2 + 23x + 15$



13. Multiply: $(8x-6)(7x-2)$

$56x^2 - 16x - 42x + 12$

$56x^2 - 58x + 12$

14. Multiply: $(2x+6)(2x-6)$

$4x^2 - 12x + 12x - 36$

$4x^2 - 36$

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15. Multiply: $2(6x+3)(x-7)$

$2(6x^2 - 42x + 3x - 21)$

$2(6x^2 - 39x - 21)$

$12x^2 - 78x - 42$

16. Multiply: $3(6x+4)(x-2)$

$3(6x^2 - 12x + 4x - 8)$

$3(6x^2 - 8x - 8)$

$\boxed{18x^2 - 24x - 24}$

17. Multiply: $-2(3x-4)(x-1)$

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

$-2(3x^2 - 7x + 4)$

$\boxed{-6x^2 + 14x - 8}$

Factoring is:

To break down an expression into its smallest multiplied parts

Factoring is like:

The opposite of these multiplying problems.