

Algebra 10-6 Special Binomial Products

Warm-Up

FOIL

Expand.

1. $(2x + 1)(x - 4)$

$$\begin{array}{r}
 2x^2 - 8x + 1x - 4 \\
 \hline
 2x^2 - 7x - 4
 \end{array}$$

2. $(9 - 4y)(7 - y)$

$$\begin{array}{r}
 63 - 9y - 28y + 4y^2 \\
 \hline
 4y^2 - 37y + 63
 \end{array}$$

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3 Patterns

1. $(a + b)^2 = (a + b)(a + b) = a^2 + ab + ab + b^2 = a^2 + 2ab + b^2$
2. $(a - b)^2 = (a - b)(a - b) = a^2 - ab - ab + b^2 = a^2 - 2ab + b^2$
3. $(a + b)(a - b) = a^2 - ab + ab - b^2 = a^2 - b^2$

<p>1. $(x + 5)^2$ $(x + 5)(x + 5)$ $x^2 + 5x + 5x + 25$ $x^2 + 10x + 25$</p>	<p>2. $(x - 6)^2$ $(x - 6)(x - 6)$ $x^2 - 6x - 6x + 36$ $x^2 - 12x + 36$</p>	<p>3. $(x + 3)(x - 3)$ $x^2 - 3x + 3x - 9$ $x^2 - 9$</p>
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Assignment 10-6 #'s 1, 2, 6-12, 18, 19, 22, 24, 25, skip 10