

Multiplying Polynomials:

9-9-14 Notes Guide

Ex. 1 $5(2x + 5)$

Ex. 2 $2x(4x + 6)$

Ex. 3 $-4(2x^2 - 6x - 3)$

Ex. 4 $3x(-x^2 + 8x - 2)$

Ex. 5 $(x + 2)(x + 3)$

FOIL [First, Outer, Inner, Last]	Box Method									
$(x + 2)(x + 3)$	<div style="text-align: center; margin-bottom: 10px;"> $x + 2$ </div> <table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding-right: 5px; vertical-align: middle;">x</td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> </tr> <tr> <td style="padding-right: 5px; vertical-align: middle;">+</td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> </tr> <tr> <td style="padding-right: 5px; vertical-align: middle;">3</td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> </tr> </table> <p style="margin-top: 10px;">1. Multiply to fill boxes 2. (Add Terms in Box) 3. (Combine like terms)</p>	x			+			3		
x										
+										
3										

Ex. 6 $(x - 3)(x^2 + 3x + 2)$

FOIL [First, Outer, Inner, Last]	Box Method															
$(x - 3)(x^2 + 3x + 2)$	<div style="text-align: center; margin-bottom: 10px;"> $x - 3$ </div> <table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding-right: 5px; vertical-align: middle;">x^2</td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> </tr> <tr> <td style="padding-right: 5px; vertical-align: middle;">+</td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> </tr> <tr> <td style="padding-right: 5px; vertical-align: middle;">$3x$</td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> </tr> <tr> <td style="padding-right: 5px; vertical-align: middle;">+</td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> </tr> <tr> <td style="padding-right: 5px; vertical-align: middle;">2</td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> </tr> </table>	x^2			+			$3x$			+			2		
x^2																
+																
$3x$																
+																
2																

Multiplying Polynomials:

Ex. 7 $(6t - 5)(7t - 5)$

Ex. 8 $(x + 3)(x^2 - 1)$

Ex. 9 $(x - 4)(-x^2 + 7x - 3)$

Ex. 10 $(x + 2)(x^2 + 6x - 1)$