SM2-A Lesson 2-3 (Multiplying Binomials)

$(x + 5)(x + 6)$

$\rightarrow x^2 + 6x + 5x + 30$

$\rightarrow x^2 + 11x + 30$

	x	6
x	x²	6x
5	5x	30

$(x - 12)(x + 2)$

$\rightarrow x^2 + 2x - 12x - 24$

$\rightarrow x^2 - 10x\text{-}24$

	x	2
x	x²	2x
-12	-12x	-24

Multiplying Complex Number Binomials

$(3 + 2i)(4 + 3i)$

$\rightarrow 12 + 9i + 8i + 6i^2$

$\rightarrow 12 + 17i - 6$

$\boxed{6 + 17i}$

	4	3i
3	12	9i
2i	8i	6i²

$(-5 - 2i)(6 + 2i)$

$\rightarrow -30 - 10i - 12i - 4i^2$

$\rightarrow -30 - 22i + 4$

$\boxed{-26 - 22i}$

	6	2i
-5	-30	-10i
-2i	-12i	-4i²