


# Expanding Triple Brackets

To **expand triple brackets** we expand the first two brackets, then multiply every term in this new expression by every term in the third bracket.

 **Example** Expand  $(x + 3)(2x - 1)(x + 5)$

**1** Expand the first two brackets

	$2x$	$-1$
$x$	$2x^2$	$-x$
$+3$	$+6x$	$-3$

$2x^2 + 5x - 3$

**2** Multiply this result by the terms in the third bracket

	$2x^2$	$+5x$	$-3$
$x$	$2x^3$	$+5x^2$	$-3x$
$+5$	$+10x^2$	$+25x$	$-15$

**3** Collect like terms

$2x^3 + 15x^2 + 22x - 15$