

Fill in the Blanks

Expanding Repeated Brackets

Question	Multiply first two brackets			Simplify first two brackets	Multiply by third bracket				Simplified Answer
$(x + 3)(x - 2)^2$ $= (x + 3)(x - 2)(x - 2)$	×	x	+3	$x^2 + x - 6$	×	x^2	+x	-6	$x^3 - x^2 - 8x + 12$
	x	x^2	+3x		x	x^3	+ x^2	-6x	
	-2	-2x	-6		-2	-2 x^2	-2x	+12	
$(y - 5)(y + 1)^2$	×	y	-5	$y^2 - 4y - 5$	×	y^2	-4y	-5	$y^3 - 3y^2 - 9y - 5$
	y	y^2	-5y		y	y^3	-4 y^2	-5y	
	+1	+y	-5		+1	+ y^2	-4y	-5	
$(t + 6)(3t - 2)^2$	×	t	+6	$3t^2 + 16t - 12$	×	$3t^2$	+16t	-12	$9t^3 + 42t^2 - 68t + 24$
	3t	$3t^2$	+18t		3t	$9t^3$	+48 t^2	-36t	
	-2	-2t	-12		-2	-6 t^2	-32t	+24	
$(x + 4)^3$	×	x	+4	$x^2 + 8x + 16$	×	x^2	+8x	+16	$x^3 + 12x^2 + 48x + 64$
	x	x^2	+4x		x	x^3	+8 x^2	+16x	
	+4	+4x	+16		+4	+4 x^2	+32x	+64	
$(2y - 3)^3$	×	2y	-3	$4y^2 - 12y + 9$	×	$4y^2$	-12y	+9	$8y^3 - 36y^2 + 54y - 27$
	2y	$4y^2$	-6y		2y	$8y^3$	-24 y^2	+18y	
	-3	-6y	+9		-3	-12 y^2	+36y	-27	