

EXPANDING DOUBLE BRACKETS

Whatever method you have been shown in class. Please show the results of all the multiplication undertaken and then show your simplified answer

- REMEMBER
- * the first terms in the brackets multiply to give first term in your answer.
 - * the last terms in the brackets multiply to give the last term in your answer.
 - * the sum of the middle terms gives the middle term in your answer
 - * use the laws of indices $x^2 \times x^3 = x^5$

Examples :

$$(x + 5)(x - 6) = x^2 - 6x + 5x - 30 = x^2 - x - 30$$

$$(2x + 3)(x - 4) = 2x^2 - 8x + 3x - 12 = 2x^2 - 5x - 12$$

$$(7x^2 + 1)(x^2 + 3) = 7x^4 + 21x^2 + x^2 + 3 = 7x^4 + 22x^2 + 3$$

Now try these

$(x + 1)(x + 7)$	$(x - 3)(x + 5)$	$(x - 1)(x - 11)$	$(x + 5)(x - 5)$	$(x - 2)(x - 7)$
$(x + 2)(x - 3)$	$(2x + 1)(x - 6)$	$(3x - 1)(x + 2)$	$(3x - 2)(2x - 3)$	$(5x - 6)(2x + 9)$
$(6x + 3)(2x - 1)$	$(3x + 5)(3x + 2)$	$(4x - 2)(3x + 2)$	$(x + 5)^2$	$(x - 2)^2$
$(x^2 - 6)(x + 1)$	$(x^2 - 2)(2x + 1)$	$(x^2 - 1)^2$	$(x^2 + 2)(x^2 - 1)$	$(x^3 - 2)(x^3 + 2)$

SOLUTIONS

$x^2 + 8x + 7$	$x^2 + 2x - 15$	$x^2 - 12x + 11$	$x^2 - 25$	$x^2 - 9x + 14$
$x^2 - x - 6$	$2x^2 - 11x - 6$	$3x^2 + 5x - 2$	$6x^2 - 13x + 6$	$10x^2 + 33x - 54$
$12x^2 - 3$	$9x^2 + 21x + 10$	$12x^2 + 2x - 4$	$x^2 + 10x + 25$	$x^2 - 4x + 4$
$x^3 + x^2 - 6x + 1$	$2x^3 + x^2 - 4x - 2$	$x^4 - 2x^2 + 1$	$x^4 + x^2 - 2$	$x^6 - 4$