FACTORISING

Please check your answers by multiplying out the brackets and simplifying. You SHOULD always end up back where you started.

Quick reminder: First terms in brackets multiply to give first term in quadratic.

Second terms in brackets multiply to give last term in quadratic.

Example: $x^2 - 6x - 7$ First terms in brackets MUST be $x\ and\ x$ $\gg\gg\gg$ $(x\quad)(x\quad)$

Second terms in brackets MUST be $1\ and\ 7$ $\gg\gg\gg$ $(x\quad 1\ )(x\quad 7\ )$

Looking for a " -6" in the centre so MUST be $+1\quad and - 7$

As $+\ 1 -\ \ 7$ = " -6" $\gg\gg\gg\gg\gg\gg$ $(x\ +\ \ 1\ )(x\ -\ \ 7\ )$

Now try these

$x^2 + 8x + 7$	$x^2 + 6x + 5$	$x^2 + 12x + 11$	$x^2 + 4x - 5$	$x^2 - 6x - 7$
$x^2 + 5x + 6$	$x^2 - 5x + 6$	$x^2 + 5x - 6$	$x^2 - 5x - 6$	$x^2 - 7x + 6$
$2x^2 + 5x - 3$	$2x^2 + 7x + 5$	$3x^2 - 10x + 7$	$5x^2 + 24x - 5$	$2x^2 - 47x + 23$
$2x^2 - 4x - 6$	$3x^2 + 9x - 30$	$5x^2 - 10x + 5$	$2x^2 + 13x + 6$	$4x^2 - 4x - 15$

SOLUTIONS

$(x + 1)(x + 7)$	$(x + 1)(x + 5)$	$(x + 1)(x + 11)$	$(x - 1)(x + 5)$	$(x + 1)(x - 7)$
$(x + 2)(x + 3)$	$(x + 1)(x - 6)$	$(x - 1)(x + 6)$	$(x - 2)(x - 3)$	$(x - 6)(x - 1)$
$(2x - 1)(x + 3)$	$(2x + 5)(x + 1)$	$(3x - 7)(x - 1)$	$(5x - 1)(x + 5)$	$(2x - 1)(x - 23)$
$2(x - 3)(x + 1)$	$3(x - 2)(x + 5)$	$5(x - 1)^2$	$(2x + 1)(x + 6)$	$(2x + 3)(2x - 5)$