



# Crack the Code



## Factorising Harder Quadratics

<b>A</b>	$2x^2 + 11x + 14$ $(2x + 7)(x + 2)$ $(2 + 7 + 1 + 2 = 12)$	<b>B</b>	$3x^2 + 8x + 5$ $(3x + 5)(x + 1)$ $(3 + 5 + 1 + 1 = 10)$
<b>C</b>	$2x^2 - x - 3$ $(2x - 3)(x + 1)$ $(2 - 3 + 1 + 1 = -3)$	<b>D</b>	$5x^2 - 11x + 2$ $(5x - 1)(x - 2)$ $(5 - 1 + 1 - 2 = 3)$
<b>E</b>	$3x^2 - 17x + 10$ $(3x - 2)(x - 5)$ $(3 - 2 + 1 - 5 = -3)$	<b>F</b>	$2x^2 + 13x - 7$ $(2x - 1)(x + 7)$ $(2 - 1 + 1 + 7 = 9)$
<b>G</b>	$6x^2 + 19x + 10$ $(2x + 5)(3x + 2)$ $(2 + 5 + 3 + 2 = 12)$	<b>H</b>	$3x^2 + 10x - 8$ $(3x - 2)(x + 4)$ $(3 - 2 + 1 + 4 = 6)$
<b>I</b>	$4x^2 - 3x - 10$ $(4x + 5)(x - 2)$ $(4 + 5 + 1 - 2 = 8)$	<b>J</b>	$6x^2 + 13x - 5$ $(3x - 1)(2x + 5)$ $(3 - 1 + 2 + 5 = 9)$
<b>K</b>	$9x^2 + 6x - 8$ $(3x + 4)(3x - 2)$ $(3 + 4 + 3 - 2 = 10)$	<b>L</b>	$4x^2 + 23x + 15$ $(4x + 3)(x + 5)$ $(4 + 3 + 1 + 5 = 13)$
<b>M</b>	$3x^2 - 8x - 60$ $(3x + 10)(x - 6)$ $(3 + 10 + 1 - 6 = 8)$	<b>N</b>	$9x^2 + 48x + 28$ $(3x + 14)(3x + 2)$ $(3 + 14 + 3 + 2 = 22)$

To get the three-digit code, total up all the coefficients of  $x$  plus all the numbers in your factorised expressions. **116**