

<i>Expression</i>	<i>Factorised</i>	<i>Relationship between x and y when $= 0$</i>	<i>$x:y$ when $x, y > 0$</i>
	$(x + y)(x + y)$	$x = -y$	No solution
$x^2 - y^2$		$x = y$ or $x = -y$	
$x^2 - 2xy + y^2$			
	$(2x - y)(x + y)$	$x = -y$ or $2x = y$	$x = \frac{y}{2}$ so $x:y = 1:2$
	$(2x + y)(x - y)$		
$2x^2 - 3xy + y^2$			1:1 or 1:2
$2x^2 + 5xy + 2y^2$			No solutions
$2x^2 + 5xy + 3y^2$			No solutions
$2x^2 + 7xy + 3y^2$			No solutions
$2x^2 - 3xy - 2y^2$			
$2x^2 + 13xy + 15y^2$			No solutions
$2x^2 - 7xy - 15y^2$		$2x = -3y$ and	
		$2x = y$	
$2x^2 - 5xy - 12y^2$			4:1
		$x = -y$ and $x = 5y$	5:1
		$x = -y$ and	1:5
$6x^2 - 7xy - 20y^2$			
$2x^2 = 3xy - y^2$	$(\quad)(\quad) = 0$		
$8x^2 = 6xy - y^2$	$(\quad)(\quad) = 0$		or 1:2
$ax^2 + axy - bxy - by^2$			