National 5 & Int. 2 — Factorising

2017 P2 Q9a	Factorise $4x^2 - 25$.	1
Ans	$(2x - 5)(2x + 5)$	
2016 P2 Q4	Factorise fully $3x^2 - 48$.	2
Ans	$3(x + 4)(x - 4)$	
2014 P2 Q3	Factorise **fully** $$3x^2 + 9x - 12.$$	3
Ans	**$3(x + 4)(x - 1)$**	
2013 P1 Q1	Factorise $$6ab - 7bc.$$	1
Ans	$b(6a - 7c)$	
2012 P1 Q8	(a) Factorise $$a^2 + 2ab + b^2.$$	1
	(b) Hence, or otherwise, find the value of $$94^2 + 2 \times 94 \times 6 + 6^2.$$	2
Ans	(a) $(a + b)^2$ (b) 10000	
2011 P1 Q9(a)	(a) Factorise $x^2 - 4x - 21$.	2
Ans	$(x + 3)(x - 7)$	
2010 P1 Q4a	Factorise $$x^2 + x - 6.$$	2
Ans	$(x + 3)(x - 2)$	

2009 P1 Q3	Factorise $$x^2 - 5x - 24.$$	2
Ans	$(x - 8)(x + 3)$	
2008 P1 Q4	(a) Factorise $$x^2 - y^2.$$ (b) Hence, or otherwise, find the value of $$9{\cdot}3^2 - 0{\cdot}7^2.$$	1 2
Ans	(a) $(x - y)(x + y)$ (b) 86	
2007 P1 Q7a	The graph shown below is part of the parabola with equation $y = 8x - x^2$. (a) By factorising $8x - x^2$, find the roots of the equation $$8x - x^2 = 0.$$	2
Ans	$x = 0$, $x = 8$	
2007 P2 Q7a	Factorise **fully** $$2x^2 - 18.$$	2
Ans	$2(x - 3)(x + 3)$	
2006 P2 Q6	Factorise $$4p^2 - 49.$$	2
Ans	$(2p - 7)(2p + 7)$	
2005 P1 Q3b	Factorise $$2p^2 - 5p - 12.$$	2
Ans	$(2p + 3)(p - 4)$	
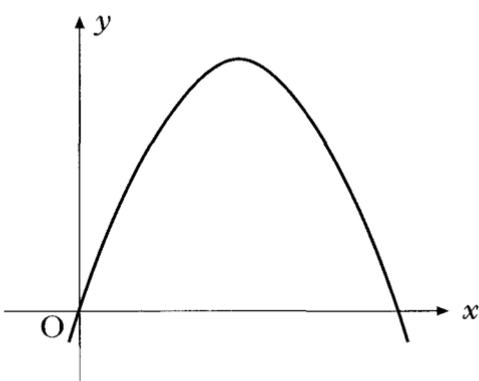
2004 P2 Q3b	Factorise $$3x^2 - 7x + 2.$$	2
Ans	$(3x - 1)(x - 2)$	
2003 P1 Q8a	Factorise $7 + 6x - x^2$.	2
Ans	$(7 - x)(1 + x)$	
2002W P2 Q10b	Factorise $$2x^2 - 7x - 9.$$	2
Ans	$(2x - 9)(x + 1)$	
2002 P2 Q5a	(i) Factorise completely $$3y^2 - 6y.$$ (ii) Factorise $$y^2 + y - 6.$$	1 2
Ans	(i) $3y(y - 2)$ (ii) $(y + 3)(y - 2)$	
2001 P1 Q1	Factorise $$x^2 + 2x - 15.$$	2
Ans	$(x + 5)(x - 3)$	