Factorising Harder Quadratics

Video 119 on www.corbettmaths.com

Workout

Question 1: Factorise each of the following

(a)
$$2x^2 + 7x + 5$$

(b)
$$2x^2 + 11x + 15$$

(b)
$$2x^2 + 11x + 15$$
 (c) $2x^2 + 9x + 10$

(d)
$$3x^2 + 13x + 4$$

(e)
$$3x^2 + 4x + 1$$

(f)
$$3x^2 + 8x + 4$$

(g)
$$5x^2 + 13x + 6$$

(h)
$$5x^2 + 26x + 5$$

(i)
$$7x^2 + 10x + 3$$

(j)
$$11x^2 + 47x + 12$$
 (k) $2x^2 + 17x + 36$

(k)
$$2x^2 + 17x + 36$$

(l)
$$5x^2 + 62x + 24$$

Question 2: Factorise each of the following

(a)
$$3x^2 + x - 4$$

(b)
$$7x^2 + 20x - 3$$

(a)
$$3x^2 + x - 4$$
 (b) $7x^2 + 20x - 3$ (c) $2x^2 - 13x + 15$

(d)
$$3x^2 - 17x + 10$$
 (e) $3x^2 - 16x - 12$

(e)
$$3x^2 - 16x - 12$$

(f)
$$3x^2 - x - 4$$

(g)
$$5x^2 - 13x - 6$$

(h)
$$3x^2 + 8x - 3$$

(i)
$$2x^2 - x - 10$$

(i)
$$2x^2 - 3x - 44$$

(k)
$$7x^2 - 22x + 16$$

(l)
$$2x^2 + 15x - 38$$

Question 3: Factorise each of the following

(a)
$$6x^2 + 13x + 6$$

(b)
$$9x^2 + 9x + 2$$

(c)
$$6x^2 + 13x + 2$$

(d)
$$8x^2 + 41x + 5$$

(e)
$$9x^2 + 6x + 1$$

(f)
$$8x^2 + 26x + 15$$

(g)
$$8x^2 + 29x + 15$$

(h)
$$10x^2 + 9x + 2$$

(i)
$$9x^2 + 27x + 20$$

(i)
$$10x^2 + 17x + 7$$

(j)
$$10x^2 + 17x + 7$$
 (k) $12x^2 + 13x + 3$

(l)
$$15x^2 + 32x + 16$$

Question 4: Factorise each of the following

(a)
$$9x^2 - 12x - 5$$

(b)
$$4x^2 - 4x - 3$$

(c)
$$4x^2 - 11x + 6$$

(d)
$$6x^2 - 7x + 2$$

(e)
$$10x^2 - 91x + 9$$

(f)
$$4x^2 + 25x - 56$$

(g)
$$6x^2 - 35x + 49$$

(h)
$$6x^2 - 7x - 10$$

(i)
$$8x^2 + 10x - 3$$

(j)
$$15x^2 + 31x + 10$$
 (k) $12x^2 + 5x - 3$

(k)
$$12x^2 + 5x - 3$$

(1)
$$20x^2 - 23x + 6$$