National 5: Factorising

www.maths.scot

Answers

Q1 **a)** $4(4x - 3)$ **b)** $5a(a - 2)$ **c)** $x(1 + 6x)$

d) $3(3xy + 2x + 4y)$ **e)** $4x^2(3 + 2x)$ **f)** $n(14n - 9)$

Q2 **a)** $(x - 5)(x + 5)$ **b)** $(x - y)(x + y)$ **c)** $(7 - y)(7 + y)$

d) $(3x - 8)(3x + 8)$ **e)** $(4 - 3y)(4 + 3y)$ **f)** $(6x - 7y)(6x + 7y)$

g) $3(x - y)(x + y)$ **h)** $2(x - 5)(x + 5)$ **i)** $2(3x - 4y)(3x + 4y)$

Q3 **a)** $(x + 1)(x + 2)$ **b)** $(x + 1)(x + 10)$ **c)** $(x + 2)(x + 5)$

d) $(x + 3)(x + 4)$ **e)** $(x + 2)(x + 6)$ **f)** $(x + 1)(x + 12)$

Q4 **a)** $(x - 1)(x - 5)$ **b)** $(x - 2)(x - 3)$ **c)** $(x - 1)(x - 6)$

d) $(x - 2)(x - 8)$ **e)** $(x - 4)^2$ **f)** $(x - 8)(x - 9)$

Q5 **a)** $(x - 1)(x + 5)$ **b)** $(x - 3)(x + 2)$ **c)** $(x - 1)(x + 6)$

d) $(x - 8)(x + 2)$ **e)** $(x - 3)(x + 8)$ **f)** $(x - 8)(x + 6)$

Q6 **a)** $(2x + 1)(x + 3)$ **b)** $(x + 5)(2x + 3)$ **c)** $(3x + 2)(x + 1)$

d) $(2x + 1)(3x + 1)$ **e)** $(2x + 5)(3x + 1)$ **f)** $(5x + 2)(6x + 5)$

g) $(4x + 3)(3x + 4)$ **h)** $(7x + 2)(4x + 5)$ **i)** $(10x + 3)(2x + 9)$

Q7 **a)** $(2x - 1)(x + 4)$ **b)** $(3x - 2)(x - 1)$ **c)** $(5x + 6)(x - 1)$

d) $(4x - 3)(2x - 1)$ **e)** $(2x - 7)(3x + 2)$ **f)** $(6x + 1)(x - 10)$

g) $(4x - 1)^2$ **h)** $(6x - 5)(8x + 3)$ **i)** $(2x - 7)(14x - 5)$

This resource is free to distribute and use on a non-commercial basis. Visit Maths.scot for notes and worked examples for every National 5 Maths topic.