Firrhill High School

Mathematics Department

Level 5

Assessment Questions

Algebra

Breaking Brackets

(1) 2010 Paper 2 Q.2

Expand fully and simplify

$x(x-1)^2$. | 2

(2) 2009 Paper 1 Q.4

(*a*) Factorise

$x^2 - 4y^2$. | 1

(*b*) Expand and simplify

$(2x-1)(x+4)$. | 1

(*c*) Expand

$x^{\frac{1}{2}}\left(3x + x^{-2}\right)$. | 2

(3) 2007 Paper 1 Q.5

Remove brackets and simplify

$(2x+3)^2 - 3(x^2-6)$. | 3

(4) 2006 Paper 2 Q.4

	KU
(*a*) Expand and simplify $(x+4)(3x-1)$.	1
(*b*) Expand $m^{\frac{1}{2}}(2+m^2)$.	2
(*c*) Simplify, leaving your answer as a surd $2\sqrt{20} - 3\sqrt{5}$.	2

(5) 2003 Paper 1 Q.3

Simplify $3(2x-4)-4(3x+1)$. 3

6) 2015 N5 Paper 1

4. Multiply out the brackets and collect like terms

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

7) 2015 Int2 Paper 1

1. Multiply out the brackets and collect like terms.

$(2x+6)(5x-3)+9x$ 3

8) 2014 N5 Paper 1

2. Multiply out the brackets and collect like terms:

$(2x-5)(3x+1)$. 2

9) 2014 Int2 Paper 1

2. Multiply out the brackets and collect like terms.

$(3x+2)(x-5)+8x$ 3

10) 2013 Credit Paper 1

7. (*a*) Expand and simplify

$(2x-5)(x^2+3x-7)$. 3

(*b*) Solve the inequality

$4x-5 \leq 7x-20$. 3

11) 2013 Int 2 Paper 2

1. Multiply out the brackets and collect like terms.

$$(x + 2)(x - 5) - 9x$$ 3

12) 2012 Credit Paper 1

2. Expand and simplify

$$(3x - 2)(2x^2 + x + 5).$$ 3

13) 2012 Int 2 Paper 2

2. Multiply out the brackets and collect like terms.

$$(3x - 5)(x^2 + 2x - 6)$$ 3

14) 2011 Credit Paper 2

2. Expand and simplify

$$(3x + 1)(x^2 - 5x + 4).$$ 3

15) 2011 Int 2 Paper 1

2. Multiply out the brackets and collect like terms.

$$5x + (3x + 2)(2x - 7)$$ 3