

S3 Revision - Expanding brackets and factorising			
1	Multiply out the brackets and collect like terms	$(x - 4)(3x + 1)$	2
2	Multiply out the brackets and collect like terms	$(5x - 7)(2x + 3)$	2
3	Multiply out the brackets and collect like terms	$(2x - 5)(3x + 10)$	2
4	Multiply out the brackets and collect like terms	$(x^2 - 5)$	2
5	Multiply out the brackets and collect like terms	$(3x + 1)(x - 2) + 5x$	3
6	Multiply out the brackets and collect like terms	$(x - 3)(5x^2 - 2x + 1)$	3
7	Multiply out the brackets and collect like terms	$(x - 3)(x^2 + 4x - 1)$	3
17 marks			

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8	Factorise fully	$x^2 + 11x + 30$	2
9	Factorise fully	$x^2 - 3x + 2$	2
10	Factorise fully	$x^2 - 5x - 14$	2
11	Factorise fully	$x^2 + 5x - 6$	2
12	Factorise fully	$x^2 - 36$	2
13	Factorise fully	$2x^2 - 18$	3
13 marks			

Expanding brackets - Answers			
1	Mark 1 start to expand (evidence of any 3 correct terms) Mark 2 fourth term correct and collect like terms	$3x^2 + x - 12x - 4$ $3x^2 - 11x - 4$	3
For a mistake in mark 1, mark 2 is still available if collecting like terms is correct.			
2	Mark 1 start to expand (evidence of any 3 correct terms) Mark 2 fourth term correct and collect like terms	$10x^2 + 15x - 14x - 21$ $10x^2 + x - 21$	3
For a mistake in mark 1, mark 2 is still available if collecting like terms is correct.			
3	Mark 1 start to expand (evidence of any 3 correct terms) Mark 2 fourth term correct and collect like terms	$6x^2 + 20x$ or $-15x - 50$ $6x^2 + 5x - 50$	2
For a mistake in mark 1, mark 2 is still available if collecting like terms is correct.			
4	Mark 1 know how to deal with $(x - 5)^2$ Mark 2 all terms correct and collect like terms	$(x - 5)(x - 5) =$ $x^2 - 10x + 25$	2
No marks are available for $(x - 5)^2 = x^2 - 5^2 = x^2 - 25$			
5	Mark 1 start to expand brackets (evidence of any 3 correct terms) Mark 2 fourth term correct Mark 3 collect terms (including 5x)	$3x^2 - 6x + x - 2$ $3x^2 - 6x + x - 2 + 5x$ $3x^2 - 2$	3
For a mistake in mark 1, mark 2 is still available if collecting like terms is correct.			
6	Mark 1 start to expand (evidence of any 3 correct terms) Mark 2 complete expansion Mark 3 collect terms	$5x^3 - 2x^2 + x$ or $-15x^2 + 6x - 3$ $5x^3 - 2x^2 + x - 15x^2 + 6x - 3$ $5x^3 - 17x^2 + 7x - 3$	3
For a mistake in mark 1 or mark 2, the final mark is still available for collecting like terms			
7	Mark 1 start to expand (any 3 correct terms) Mark 2 complete expansion Mark 3 collect terms	$x^3 + 4x^2 - x$ or $-3x^2 - 12x + 3$ $x^3 + 4x^2 - x - 3x^2 - 12x + 3$ $x^3 + x^2 - 13x + 3$	3
For a mistake in mark 1 or mark 2, the final mark is still available for collecting like terms.			

	Factorising - Answers		
8	Mark 1 One bracket correct Mark 2 Both brackets correct	$(x + 5) \text{ or } (x + 6)$ $(x + 5)(x + 6)$	2
	The order in the final answer does not matter $(x + 5)(x + 6) = (x + 6)(x + 5)$		
9	Mark 1 One bracket correct Mark 2 Both brackets correct	$(x - 2) \text{ or } (x - 1)$ $(x - 2)(x - 1)$	2
	The order in the final answer does not matter $(x - 2)(x - 1) = (x - 1)(x - 2)$		
10	Mark 1 One bracket correct Mark 2 Both brackets correct	$(x - 7) \text{ or } (x + 2)$ $(x - 7)(x + 2)$	2
	The order in the final answer does not matter $(x - 7)(x + 2) = (x + 2)(x - 7)$ In S3 one mark will be given for $(x + 7)(x - 2)$, in S4 this would get no marks !		
11	Mark 1 One bracket correct Mark 2 Both brackets correct	$(x + 6) \text{ or } (x - 1)$ $(x + 6)(x - 1)$	2
	The order in the final answer does not matter $(x + 6)(x - 1) = (x - 1)(x + 6)$ In S3 one mark will be given for $(x - 6)(x + 1)$, in S4 this would get no marks! No marks are available for any of these answers - $(x + 3)(x + 2) \text{ or } (x - 3)(x - 2) \text{ or } (x + 3)(x - 2) \text{ or } (x - 3)(x + 2)$		
12	Mark 1 Know that this is a difference of two squares Mark 2 Complete factorisation	$(x + \quad)(x - \quad)$ $(x + 6)(x - 6)$	2
	The order in the final answer does not matter $(x + 6)(x - 6) = (x - 6)(x + 6)$		
13	Mark 1 Remove the common factor Mark 2 Know that this is a difference of two squares Mark 2 Complete factorisation	$2(x^2 - 25)$ $2(x + \quad)(x - \quad)$ $2(x + 5)(x - 5)$	3
	The order in the final answer does not matter $2(x + 5)(x - 5) = 2(x - 5)(x + 5)$ Two marks will be given for $(2x + 10)(x - 5) \text{ or } (x + 5)(2x - 10)$		

