

Q	Answer	Mark	Comments
1	Alternative method 1 – multiplies $(x - 3)(x + 2)$ first		
	$x^2 - 3x + 2x - 6$ or $x^2 - x - 6$	M1	four terms with at least three correct implied by $x^2 - x \pm k$ where k is a non-zero constant
	$x^3 - 3x^2 + 2x^2 - 6x + 5x^2 - 15x + 10x - 30$ or $x^3 - x^2 - 6x + 5x^2 - 5x - 30$	M1dep	full expansion with correct multiplication of their 3 or 4 terms by x and 5
	$x^3 + 4x^2 - 11x - 30$	A1	
	Alternative method 2 – multiplies $(x - 3)(x + 5)$ first		
	$x^2 - 3x + 5x - 15$ or $x^2 + 2x - 15$	M1	four terms with at least three correct implied by $x^2 + 2x \pm k$ where k is a non-zero constant
	$x^3 - 3x^2 + 5x^2 - 15x + 2x^2 - 6x + 10x - 30$ or $x^3 + 2x^2 - 15x + 2x^2 + 4x - 30$	M1dep	full expansion with correct multiplication of their 3 or 4 terms by x and 2
	$x^3 + 4x^2 - 11x - 30$	A1	
	Alternative method 3 – multiplies $(x + 2)(x + 5)$ first		
	$x^2 + 2x + 5x + 10$ or $x^2 + 7x + 10$	M1	four terms with at least three correct implied by $x^2 + 7x \pm k$ where k is a non-zero constant
	$x^3 + 2x^2 + 5x^2 + 10x - 3x^2 - 6x - 15x - 30$ or $x^3 + 7x^2 + 10x - 3x^2 - 21x - 30$	M1dep	full expansion with correct multiplication of their 3 or 4 terms by x and -3
	$x^3 + 4x^2 - 11x - 30$	A1	
	Additional Guidance		
	Do not ignore further incorrect simplification or attempt to solve after correct answer seen		

Q	Answer	Mark	Comments
2	Alternative method 1: multiplies $(x - 3)(x - 4)$ first		
	$x^2 - 3x - 4x + 12$ or $x^2 - 7x + 12$	M1	four terms with at least three correct implied by $x^2 - 7x + k$ where k is a non-zero constant
	$x^3 - 3x^2 - 4x^2 + 12x + 8x^2 - 24x - 32x + 96$ or $x^3 - 7x^2 + 12x + 8x^2 - 56x + 96$	M1dep	full expansion with correct multiplication of their 3 or 4 terms by x and 8
	$x^3 + x^2 - 44x + 96$	A1	
	Alternative method 2: multiplies $(x - 3)(x + 8)$ first		
	$x^2 - 3x + 8x - 24$ or $x^2 + 5x - 24$	M1	four terms with at least three correct implied by $x^2 + 5x + k$ where k is a non-zero constant
	$x^3 - 3x^2 + 8x^2 - 24x - 4x^2 + 12x - 32x + 96$ or $x^3 + 5x^2 - 24x - 4x^2 - 20x + 96$	M1dep	full expansion with correct multiplication of their 3 or 4 terms by x and -4
	$x^3 + x^2 - 44x + 96$	A1	
	Alternative method 3: multiplies $(x - 4)(x + 8)$ first		
	$x^2 - 4x + 8x - 32$ or $x^2 + 4x - 32$	M1	four terms with at least three correct implied by $x^2 + 4x + k$ where k is a non-zero constant
	$x^3 - 4x^2 + 8x^2 - 32x - 3x^2 + 12x - 24x + 96$ or $x^3 + 4x^2 - 32x - 3x^2 - 12x + 96$	M1dep	full expansion with correct multiplication of their 3 or 4 terms by x and -3
	$x^3 + x^2 - 44x + 96$	A1	
	Additional Guidance		
	Do not award A mark if further incorrect simplification or attempt to solve after correct answer seen		
	For method marks, terms may be given in a table with correct signs shown		