

Question	Answer	Mark	Mark scheme	Additional guidance
11 (a)	$x^3 + 7x^2 - 6x - 72$	M1	<p>for a method to find the product of any two linear expressions, 3 correct terms out of 4 terms or 4 terms correct ignoring signs, eg $x^2 + 4x - 3x - 12 (= x^2 + x - 12)$ or $x^2 + 4x + 6x + 24 (= x^2 + 10x + 24)$ or $x^2 - 3x + 6x - 18 (= x^2 + 3x - 18)$</p>	<p>Note that, for example, $3x - 18$ is regarded as three terms in the expansion of $(x - 3)(x + 6)$</p>
(b)	Description	M1	<p>(dep) for a complete method to obtain all terms, at least half of which are correct (ft their first product) eg $x^3 + 6x^2 + 4x^2 - 3x^2 + 24x - 18x - 12x - 72$ or $x^3 + 6x^2 + x^2 + 6x - 12x - 72$ or $x^3 - 3x^2 + 10x^2 - 30x + 24x - 72$ or $x^3 + 4x^2 + 3x^2 + 12x - 18x - 72$</p>	<p>First product must be a quadratic with at least 3 terms but need not be simplified or may be simplified incorrectly</p>
		A1	cao	
		C1	<p>identifies a mistake in the working</p> <p>Acceptable examples He should have added 6 to 5 (and 12) He only added 6 to 12 He should do the same thing to both sides He should add 6 to both sides then divide by 4 on both sides It should be $11 < 4x < 18$</p> <p>Not acceptable examples He has solved it wrong The answer should be $2.75 < x < 4.5$ He should divide by 4 first He has done it correctly He has to add the -6 to the 5</p>	