

Q	Marking instructions	AO	Marks	Typical solution
6	<p>Begins to solve the problem using an appropriate technique eg factorising or grouping terms in numerator or writing <math>y = \sqrt{x}</math></p> <p><b>PI</b> if <math>2 + x</math> or <math>25 - x</math> or <math>5 - x^{1/2}</math> seen</p> <p>or</p> <p>multiplies by <math>\frac{5 + \sqrt{x}}{5 + \sqrt{x}}</math></p>	3.1a	M1	$\frac{10 + 5x - 2x^{\frac{1}{2}} - x^{\frac{3}{2}}}{5 - \sqrt{x}} \times \frac{5 + \sqrt{x}}{5 + \sqrt{x}}$ $= \frac{50 + 25x - 10x^{\frac{1}{2}} - 5x^{\frac{3}{2}} + 10\sqrt{x} + 5x\sqrt{x} - 2x - x^{\frac{3}{2}}\sqrt{x}}{25 - x}$ $= \frac{50 + 23x - x^2}{25 - x}$ $= \frac{(25 - x)(2 + x)}{25 - x}$ $= 2 + x$
	<p>Obtains one correct common factor in numerator eg <math>2 + x</math> or <math>25 - x</math> or <math>5 - x^{1/2}</math></p> <p>or</p> <p>expands numerator</p> <p>condone one error</p> <p>may be unsimplified</p>	1.1a	M1	
	<p>Obtains second correct common factor in numerator</p> <p>or</p> <p>obtains correct simplified numerator and denominator</p> <p><b>PI</b> in long division</p>	1.1a	M1	
	<p>Completes manipulation by cancelling common factor to obtain <math>2 + x</math></p>	1.1b	A1	
	<b>Total</b>		<b>4</b>	