23		**RG and GR method**	**RR and GG method**			
		$\frac{3}{t}\times\frac{t-3}{t-1}$ **or** $\frac{t-3}{t}\times\frac{3}{t-1}$	$\frac{3}{t}\times\frac{2}{t-1}$ **or** $\frac{t-3}{t}\times\frac{t-4}{t-1}$			M1 for one correct product
		$\frac{3}{t}\times\frac{t-3}{t-1}+$ $\frac{t-3}{t}\times\frac{3}{t-1}=\frac{12}{35}$ **or** $2\times\frac{3}{t}\times\frac{t-3}{t-1}=\frac{12}{35}$ oe	$\frac{3}{t}\times\frac{2}{t-1}+$ $\frac{t-3}{t}\times\frac{t-4}{t-1}=\frac{23}{35}$			M1 dep on M1 for a correct equation
		e.g. $2t^2 - 37t + 105 (= 0)$ **or** allow $2t^2 - 37t = -105$				A1 (dep on M2) writing the correct quadratic expression in form $ax^2 + bx + c$ (= 0) allow $ax^2 + bx = c$
		e.g. $(2t - 7)(t - 15) = 0$ e.g. $t = \frac{-(-37)\pm\sqrt{(-37)^2 - 4\times2\times105}}{2\times2}$ e.g. $2\left(\left(t-\frac{37}{4}\right)^2-\left(\frac{37}{4}\right)^2\right)=-105$				M1 (dep on A1) for a complete method to solve the 3-term quadratic equation (allow one sign error and some simplification – allow as far as $\frac{37\pm\sqrt{1369-840}}{4}$) **or** Can be implied by answers of 15 (and $\frac{7}{2}$)
				12	5	A1 (dep on A1) cao
						Total 5 marks

23 Alt		**RG and GR method**	**RR and GG method**			
		$\frac{3}{x+3}\times\frac{x}{x+2}$ **or** $\frac{x}{x+3}\times\frac{3}{x+2}$	$\frac{3}{x+3}\times\frac{2}{x+2}$ or $\frac{x}{x+3}\times\frac{x-1}{x+2}$			M1 for one correct product
		$\frac{3}{x+3}\times\frac{x}{x+2}+\frac{x}{x+3}\times\frac{3}{x+2}=\frac{12}{35}$ **or** $2\times\frac{3}{x+3}\times\frac{x}{x+2}=\frac{12}{35}$ oe	$\frac{3}{x+3}\times\frac{2}{x+2}+\frac{x}{x+3}\times\frac{x-1}{x+2}=\frac{23}{35}$			M1 dep on M1 for a correct equation
		e.g. $2x^2 - 25x + 12 (= 0)$ **or** allow $2x^2 - 25x = -12$				A1 (dep on M2) writing the correct quadratic expression in form $ax^2 + bx + c$ (= 0) allow $ax^2 + bx = c$
		e.g. $(2x - 1)(x - 12) = 0$ e.g. $x = \frac{-(-25)\pm\sqrt{(-25)^2 - 4\times2\times12}}{2\times2}$ e.g. $2\left(\left(x-\frac{25}{4}\right)^2-\left(\frac{25}{4}\right)^2\right)=-12$				M1 (dep on A1) for a complete method to solve the 3-term quadratic equation (allow one sign error and some simplification – allow as far as $\frac{25\pm\sqrt{625-96}}{4}$) **or** can be implied by answers of 12 (and $\frac{1}{2}$)
				12	5	A1 (dep on A1) cao

				Total 5 marks