Question	Answer	Marks	AO	Guidance
7	**DR** $y = x(x-2)$ meets $y = 9-2x$ when $x^2 - 2x = 9 - 2x$ so $x = 3$	**M1** **A1**	**3.1a** **1.1**	May be implied by $x = 3$ seen Correct working must seen
	The curve crosses the x-axis at $x = 2$	**B1**	**1.1**	May be seen on diagram or implied by correct limits seen
	The part of the shaded area under the curve is $\int_2^3 (x^2 - 2x)\mathrm{d}x = \left[\frac{x^3}{3} - x^2\right]_2^3 = \frac{4}{3}$	**M1** **A1**	**2.1** **1.1**	Attempt to integrate equation of the curve – attempt at indefinite integral must be seen Fully correct from correct working
	Area under the line is $\frac{1}{2} \times 1.5 \times 3$ Or $\int_3^{4.5}(9-2x)\mathrm{d}x = [9x - x^2]_3^{4.5} = \frac{9}{4}$	**M1** **A1**	**1.1** **1.1**	Attempt to find the area of the triangle using the coordinates of the point of intersection. Also allow for definite integral of the equation of the line with upper limit 4.5 Fully correct from correct working
	Total area is $\frac{4}{3} + \frac{9}{4} = \frac{43}{12}$	**A1**	**2.1**	Dep on at least one of the two M marks above Must be exact
		[8]		For candidates with M0A0M0A0A0, allow SC1 $\pm\int\left((x^2-2x)-(9-2x)\right)\mathrm{d}x = \pm\left(\frac{x^3}{3} - 9x\right)[+c]$ oe And SC1 for $\pm\int_2^{4.5}\left((x^2-2x)-(9-2x)\right)\mathrm{d}x = \pm\frac{125}{24}$