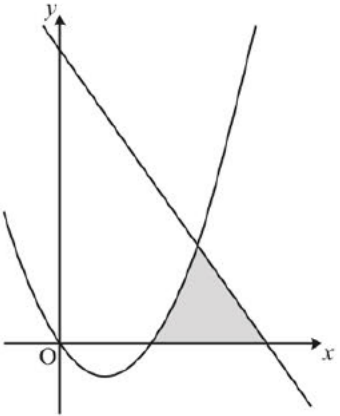
7 In this question you must show detailed reasoning.

The diagram shows the curve $y = x(x-2)$ and the line $y = 9-2x$.



Find the exact area of the shaded region between the x-axis, the line and the curve. **[8]**