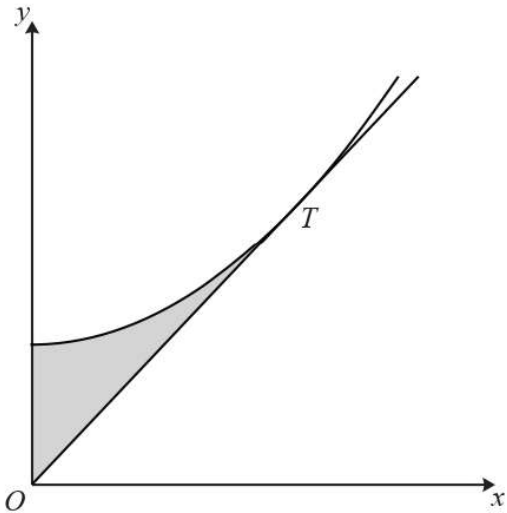
6 In this question you must show detailed reasoning.



A curve has equation $y = x^2 + 4$.
A line passes through O and is a tangent to the curve at the point T.

Determine the area of the shaded region enclosed by the curve, the line and the y-axis. **[8]**