Worksheet: Application of Integrals (Area Under Curves)

Maharashtra State Board · Class 12 · Mathematics · 3 questions · 14 marks

Name: _____	Date: _____	Score: _____ / 14

Q1. Find the area of the region bounded by $y = x^2$, $y = 0$, $x = 0$ and $x = 3$. *[3 marks]*

Q2. Find the area of the region enclosed by the parabola $y = x^2$ and the line $y = x + 2$. *[5 marks]*

Q3. Using integration, find the area of the region in the first quadrant enclosed by the circle $x^2 + y^2 = 4$ and the line $x = 3 \cdot y$. *[6 marks]*