

Worksheet: Applications of Integrals

Maharashtra State Board · Class 12 · Mathematics · 5 questions · 14 marks

Name: _____

Date: _____

Score: _____ / 14

Q1. Find the area bounded by $y = x^2 + 2$, the x-axis, $x = 0$, and $x = 3$. [2 marks]

Q2. Find the area of the ellipse $x^2/9 + y^2/4 = 1$ by integration. [2 marks]

Q3. Find the area bounded by $y^2 = x$ and $y = x$. [3 marks]

Q4. Find the area bounded by $y = \sin x$ and the x-axis from $x = 0$ to 2π . [3 marks]

Q5. Find the area between $y = 4 - x^2$ and $y = x^2 - 4$. [4 marks]
