

NAME: \_\_\_\_\_ ID: \_\_\_\_\_ Section: \_\_\_\_\_

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**Exercise 1** (5 points)

Evaluate the integral  $\int \frac{dx}{\sqrt{x-x^2}}$

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**Exercise 2** (5 points)

Find the volume of the solid obtained by rotating the area enclosed by the curves  $y = x^2 + 1$ ,  $y = 9 - x^2$  in the first quadrant about the line  $x = -2$

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**Exercise 1** (5 points)

Evaluate the integral  $\int \frac{dx}{x\sqrt{1 - (\ln x)^2}}$

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**Exercise 2** (5 points)

Find the volume of the solid obtained by rotating the area enclosed by the curves  $y = x^2 + 2$ ,  $y = 10 - x^2$  in the first quadrant about the line  $x = -2$

