

NAME: _____ ID: _____ Section: _____

Exercise 1 (5 points)

Evaluate $I = \frac{1}{4} \int \frac{x^2 dx}{\sqrt{x^2 - 4}}$ [Hint: use trigonometric substitution and next integration by part]

Exercise 2 (5 points)

Evaluate $\int \frac{x^2 + x + 5}{x^3 + x^2 + 4x + 4} dx$

NAME: _____ ID: _____ Section: _____

Exercise 1 (5 points)

Evaluate $I = \frac{1}{9} \int \frac{x^2 dx}{\sqrt{x^2 + 9}}$ [Hint: use trigonometric substitution and next integration by part]

Exercise 2 (5 points)

Evaluate $\int \frac{x^2 + x + 8}{x^3 - x^2 + 9x - 9} dx$

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Exercise 1 (5 points)

Evaluate $I = \frac{1}{16} \int \frac{x^2 dx}{\sqrt{x^2 + 16}}$ [Hint: use trigonometric substitution and next integration by part]

Exercise 2 (5 points)

Evaluate $\int \frac{x^2 + x + 8}{x^3 - x^2 + 9x - 9} dx$

NAME: _____ ID: _____ Section: _____

Exercise 1 (5 points)

Evaluate $I = \frac{1}{25} \int \frac{x^2 dx}{\sqrt{x^2 - 25}}$ [Hint: use trigonometric substitution and next integration by part]

Exercise 2 (5 points)

Evaluate $\int \frac{x^2 + x + 5}{x^3 + x^2 + 4x + 4} dx$