

# Calculus AB

4-5

(Day 1)

## Integration by Substitution

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Find the indefinite integral. (pg. 306)

$$14) \int \sqrt[3]{3 - 4x^2} (-8x) dx$$

$$20) \int t^3 \sqrt{t^4 + 5} dt$$

$$28) \int \frac{1}{2\sqrt{x}} dx$$

$$36) \int \left( \frac{t^3}{3} + \frac{1}{4t^2} \right) dt$$

Solve the differential equation.

$$40) \frac{dy}{dx} = \frac{10x^2}{\sqrt{1 + x^3}}$$

Assignment: Pg. 306 11-41 odd
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