

University of Bahrain
Department of Mathematics
MATHS101: Calculus I
Dr. Abdulla Eid



Worksheet: Substitution Method

Students' Name: _____

1. Find the following integrals:

1. $\int \sqrt{3x + 5} dx$

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2. $\int \cos x \sqrt[7]{(1 + \sin x)^9} dx$

$$3. \int \frac{\sec^2 x}{\tan^{101} x} dx$$

$$4. \int \frac{\sin(2x)}{1 - \cos^2 x} dx$$

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5. $\int 4x^7(x^4 + 4)^{101} dx$

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6. $\int_0^{\frac{1}{2}} \frac{\sin^{-1} x}{\sqrt{1-x^2}} dx$

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