Integration by Change of Variables

Use a change of variables to compute the following integrals. Change both the variable and the limits of substitution.

$$a) \int_0^4 \sqrt{3x+4} \, dx$$

$$b) \int_1^3 \frac{x}{x^2 + 1} \, dx$$

c)
$$\int_0^{\pi/2} \sin^5 x \cos x \, dx$$

MIT OpenCourseWare http://ocw.mit.edu

18.01SC Single Variable Calculus Fall 2010

For information about citing these materials or our Terms of Use, visit: http://ocw.mit.edu/terms.