Shawka school C2, C3

Grade 12

Lesson 5.6
INTEGRATION BY SUBSTITUTION

Choose the most suitable **u** in the following integration to use substitution:

$$\int (x^3+5)^2(x^2)dx$$

a) $(x^3+5)^2$ b) x^3+5 c) x^2

$$\int 2xe^{x^2}dx.$$

a) $2x$ b) e^{x^2} c) x^2

$$\int x\cos x^2\,dx.$$

a) x b) $cosx^2$ c) x^2

$$\int \frac{\sin\sqrt{x}}{\sqrt{x}}\,dx.$$

a) $\sqrt{x}$ b) $sin\sqrt{x}$ c) $\frac{sin\sqrt{x}}{\sqrt{x}}$

$$\int \frac{(\tan^{-1}x)^2}{1+x^2}\,dx.$$

a) $tan^{-1}x$ b) $sin^{-1}x$ c) x

LIVEWORKSHEETS