Method of Substitution for Integration with Radicals

Worksheet 1

*To view the **lesson notes, tutorial(s)** and **answer key** scan the **QR Code** in the upper right hand corner or **click on the link in the header** of this page.*

Question 1

a) Find $\displaystyle\int 3x\sqrt{x+4} \, . \, dx$ using the substitution $u = x + 4$

b) Find $\int 3x\sqrt{x+4}\,.\,dx$ using the substitution $u = \sqrt{x+4}$

b) Find $\int 3x\sqrt{x+4}\,.\,dx$ using the substitution $u = \sqrt{x+4}$

Question 2

a) Find $\displaystyle\int x^2 \sqrt[3]{2x - 3} \, . \, dx$ using the substitution $u = 2x - 3$.

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b) Find $\int x^2 \sqrt[3]{2x-3} \, . \, dx$ using the substitution $u = \sqrt[3]{2x-3}$.

b) Find $\int x^2 \sqrt[3]{2x-3} \, . \, dx$ using the substitution $u = \sqrt[3]{2x-3}$.