

M120 Worksheet 5.2 Substitution

Name _____

Use Integration by Substitution to find the integral

1) $\int 4x^5(x^6 + 100)^5 dx$

2) $\int x^2\sqrt{x^3 + 5} dx$

3) $\int (x - 1)e(3x^2 - 6x) dx$

4) $\int \frac{(\ln x)^5}{x} dx$

Answer Key

Testname: WORKSHEET 5.2 SUBSTITUTION

$$1) \frac{1}{9}(x^6 + 100)^6 + C$$

$$2) \frac{2}{9}(x^3 + 5)^{3/2} + C$$

$$3) \frac{1}{6}e^{(3x^2 - 6x)} + C$$

$$4) \frac{1}{6}(\ln x)^6 + C$$