

Name: _____

Calculus

Integral Progression C: Integration by Substitution

1) $\int 2x \sqrt{x^2+1} dx$

9) $\int \tan x dx$

2) $\int 2xe^{x^2+1} dx$

10) $\int e^{5x} dx$

3) $\int 2x \cos(x^2+1) dx$

11) $\int e^{\frac{x}{3}} dx$

4) $\int \frac{2x}{x^2+1} dx$

12) $\int \cos 5x dx$

5) $\int \cos x \sqrt{\sin x} dx$

13) $\int \sin \frac{x}{3} dx$

6) $\int \cos x \sin^2 x dx$

14) $\int \frac{3x+2}{3x^2+4x+1} dx$

7) $\int \sin x e^{\cos x} dx$

15) $\int 2x \cos x^2 e^{\sin x^2} dx$

8) $\int \frac{\sin x}{\cos x} dx$

16) $\int \frac{x^2 \sin x^3}{\cos^3 x^3} dx$