

Student Name: _____

Score: _____

Definite Integrals

Evaluate:

$$\int_1^2 (2x^3 + 2x + \sqrt{x}) dx$$

$$\int_{\frac{\pi}{6}}^{\frac{\pi}{2}} (2 \cos 2x - \csc^2 x) dx$$

$$\int_1^2 (e^x + x + 1) dx$$

$$\int_0^1 \left(\frac{2}{\sqrt{1-x^2}} + e^{2x} \right) dx$$

$$\int_1^2 \left(e^{2x} + \frac{8}{e^x} \right) dx$$

$$\int_0^{\frac{\pi}{2}} \frac{\cos x}{1 + \sin^2 x} dx$$

$$\int_1^2 \left(x^4 - \frac{7}{x^3} + \frac{5}{\sqrt{x}} \right) dx$$

$$\int_{\frac{\pi}{6}}^{\frac{\pi}{4}} (\sin x + \cos x)^2 dx$$

$$\int_0^1 \left(\frac{5}{1+x^2} + \frac{2x}{3} \right) dx$$

$$\int_{\frac{\pi}{3}}^{\frac{\pi}{2}} \sin^3 x dx$$