

Name:

Section: 5 6

Compute the following:

$$\int_4^9 \frac{1}{2\sqrt{x}} + 2 \, dx$$

$$\int r^2(r^3 + 1) \, dr$$

$$\int \sin(\theta) \cos(\theta) \, d\theta$$

$$\int \sqrt[3]{\frac{8}{s}} \, ds$$

$$\int_0^1 \frac{1}{\sqrt{3-2x}} \, dx$$

$$\int \frac{x^2 + x}{(2x^3 + 3x^2)^3} \, dx$$

Compute the following:

$$\int_0^{\sqrt{\pi/4}} \frac{\sin(x^2)x}{\sqrt{\cos(x^2)}} dx$$

$$\int \sin(\tan(x)) \sec^2(x) dx$$

$$\int_1^2 \frac{x-2}{\sqrt{x+1}} dx$$

Find the area between $y = \cos(x)$ and $y = 1/2$ on the interval $[0, 2\pi]$.