

## 8.3 Trigonometric Integrals

Name:

Date: June 2, 2015

**P 2.** Find the indefinite integral.

$$\int \cos^3 x \sin^4 x \, dx$$

**P 4.** Find the indefinite integral.

$$\int \sin^3 3x \, dx$$

**P 12.** Find the indefinite integral.

$$\int x^2 \sin^2 x \, dx$$

**P 20.** Find the indefinite integral.

$$\sec^4 2x \, dx$$

**P 22.** Find the indefinite integral.

$$\int \tan^6 3x \, dx$$

**P 24.** Find the indefinite integral.

$$\int \tan^3 \frac{\pi x}{2} \sec^2 \frac{\pi x}{2} dx$$

**P 42.** Find the indefinite integral.

$$\int \cos 5\theta \cos 3\theta d\theta$$

**P 74.** Find the area of the region bounded by the graphs of the equations

$$y = \cos^2 x, \quad y = \sin x \cos x, \quad x = -\pi/2, \quad \text{and} \quad x = \pi/4$$

**P 78.** Find the volume of the solid formed by revolving the region bounded by the equations

$$y = \cos x, \quad y = 0, \quad x = 0, \quad \text{and} \quad x = \pi/2$$