

HW 4.5

Find the indefinite integral.

$$9. \int \sqrt{9-x^2} (-2x) dx$$

$$27. \int \frac{1}{\sqrt{2x}} dx$$

$$12. \int x^2 (x^3 + 5)^4 dx$$

$$45. \int \sin 2x dx$$

$$15. \int t\sqrt{t^2 + 2} dt$$

$$48. \int x \sin x^2 dx$$

$$18. \int u^2 \sqrt{u^3 + 2} du$$

$$51. \int \tan^4 x \sec^2 x dx$$

$$21. \int \frac{x^2}{(1+x^3)^2} dx$$

$$54. \int \frac{\sin x}{\cos^3 x} dx$$

$$24. \int \frac{x^3}{\sqrt{1+x^4}} dx$$

$$63. \int x\sqrt{x+2} dx$$

$$66. \int (x+1)\sqrt{2-x} dx$$

Find the definite integral.

$$72. \int_{-2}^4 x^2 (x^3 + 8)^2 dx$$

$$78. \int_0^2 x^3 \sqrt{4+x^2} dx$$

$$75. \int_0^4 \frac{1}{\sqrt{2x+1}} dx$$

Evaluate the integral using the properties of even and odd functions.

$$101. \int_{-2}^2 x^2 (x^2 + 1) dx$$

$$104. \int_{-\frac{\pi}{2}}^{\frac{\pi}{2}} \sin x \cos x dx$$