Aisle _____   pg. 580; 1, 5, 9, 13, 17, 22, 27, 30,, 41, 49, 55, 59, 69, 73
Show all necessary work neatly.

Evaluate:

1. $$\int \sqrt{4 + 9x}\, dx$$	5. $$\int x\,tan^2(x^2)sec^2(x^2)\,dx$$
9. $$\int xe^{-x}\,dx$$	13. $$\int 8x^4 \cos 2x\, dx$$
17. $$\int \sin x \cos 2x\, dx$$	22. $$\int \frac{dx}{x^2\sqrt{16 - x^2}}$$

27.

$$\int \frac{dx}{x^2 + 3x - 4}$$

30.

$$\int \frac{x^2 + x - 16}{(x + 1)(x - 3)^2} dx$$

41. Use 10 subintervals to approximate the integral by the (a) trapezoidal rule, and (b) Simpson's rule. In each case, find the exact value of the integral and approximate the absolute error. Express your answers to the nearest four decimal places.

$$\int_0^3 \sqrt{x + 1}\, dx$$

49.

$$\int_0^9 \frac{1}{\sqrt{9 - x}}\, dx$$

55.

$$\int \frac{1}{(3 + x^2)^{3/2}}\, dx$$

59.

$$\int \sin^2 2x \cos^3 2x \, dx$$

69.

$$\int_0^{1/2} \sin^{-1} x \, dx$$

73.

$$\int_a^\infty \frac{x}{(x^2 + 1)^2} \, dx$$