

## SECTION 5.7 EXTRA: INTEGRATION PALOOZA

Evaluate the following integrals. A correct answer requires organized, correct supporting work. Once all are completed, describe in words the strategy used or the type of integration problem it represents.

1.  $\int_1^8 \frac{x^{1/3} - (\pi x)^2}{x} dx$

2.  $\int \frac{5x}{\sqrt{3 - 6x^2}} dx$

3.  $\int \frac{5}{\sqrt{1 - 4x^2}} dx$

$$4. \int \left( 8x + \frac{1}{e^{2x-9}} \right) dx$$

$$5. \int x^3(1+x^2)^{0.1} dx$$

$$6. \int \left( \frac{1}{2x} + \sec(3x) \tan(3x) \right) dx$$