

For each of these integrals, determine a strategy for evaluating. Don't evaluate them, just figure out which technique of integration will work, including what substitutions you will use.

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

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

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

10.  $\int (x+2)\sqrt{x} dx$

3.  $\int \sin^6 x \cos^2 x dx$

11.  $\int \frac{e^x}{4+e^{2x}} dx$

4.  $\int \sin^5 x \cos^2 x dx$

12.  $\int \frac{1}{x \ln x} dx$

5.  $\int \frac{3}{x^2+5x+4} dx$

13.  $\int x^2 \cos 5x dx$

6.  $\int \frac{3}{x^2+6x+9} dx$

14.  $\int \frac{x^2+1}{x} dx$

7.  $\int \arcsin x dx$

15.  $\int \frac{x+5}{x^2+4} dx$

8.  $\int \frac{\arctan x}{1+x^2} dx$

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