

1. $\int \sec(2x) \tan(2x) e^{\sec(2x)} dx$

Use a substitution.

2. $\int \ln(2x) dx$

Integrate by parts.

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

Use tabular integration by parts.

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

Use partial fractions.

5. $\int \frac{dx}{\sqrt{49x^2-9}}$

Use a trig substitution.

6. $\int_1^\infty \frac{dx}{x^3}$

Replace ∞ by a variable, say b , integrate, then take the limit of the results as $b \rightarrow \infty$.