integration by parts

boundary
term

integral
term

integration by parts

We write the rule for integration by parts as

$$\int u \frac{dv}{dx} dx = uv - \int v \frac{du}{dx} dx$$

boundary term   integral term

- Given an integral whose integrand is the product of two functions, we choose one to be u and the other to be v', from which we can calculate u' and v

- Plugging into the above equation (hopefully) leads to an easier integration

integration by parts