Integration by Parts

$$\int u\,dv = uv - \int v\,du$$

BC Only: Integration by Parts

If u and v are differentiable functions of x, then

$$\int u\,dv = uv - \int v\,du$$

Tips: For your choice of the function u, make the selection following:

A. LIPET: Logarithmic, Inverse Trig, Polynomial, Exponential, Trig

B. LIATE: Logarithmic, Inverse Trig, Algebraic, Trig, Exponential

$*$ Comes from Integration by Parts. MEMORIZE $\displaystyle\int \ln x\,dx = x\ln x - x + C$

Integration by Parts: $\displaystyle \int u\ dv = uv - \int v\ du$