

MATH 3D Prep: Integration by Parts

Facts to Know:

Steps of integrating by parts:

1. Choose _____ and _____ such that the integral you want to calculate is $\int u dv$.
2. Calculate _____ and _____.
3. Conclude that $\int u dv =$

Examples:

1. Evaluate $\int 3xe^{2x} dx$.

$$u = \quad \quad \quad dv =$$

$$du = \quad \quad \quad v =$$

2. Evaluate $\int e^x \cos(x) dx$.