

## Integration by parts examples

math 121

$$\textcircled{1} \int_0^1 x \cdot e^{2x} dx$$

$$\textcircled{2} \int x^3 e^{2x} dx$$

$$\textcircled{3} \int_1^e x \cdot \ln(x) dx$$

$$\textcircled{4} \int \arctan(x) dx$$

$$\textcircled{5} \int e^{-x} \cdot \cos(2x) dx$$

$$\textcircled{6} \int_1^{e^2} (\ln x)^2 dx$$