## Find integral of each

$$1) \quad \int x \cdot e^x \ dx =$$

$$2) \quad \int x \cdot \sin x \ dx$$

$$3) \quad \int x^2 e^{-x} \ dx =$$

$$4) \quad \int x^3 \cos x \, dx =$$

$$5) \quad \int \ln x \ dx =$$

$$6) \quad \int x^9 \cdot \ln x \ dx =$$

$$7) \quad \int e^{-x} \cos x \, dx =$$