

## Substitution and integration by parts

1. Find  $\int \sin x \cos x \, dx$ .
2. Find  $\int (\ln x)^2 \, dx$ .
3. Do **one** of the following integrals.

$$\int x^{100} \ln x \, dx$$

$$\int x^{100} e^x \, dx$$

4. Find  $\int e^{\sqrt{t}} \, dt$ .