

## Homework 11

1. Find the indefinite integral. (Use  $C$  for the constant of integration.)

$$\int \frac{x^2}{x-3} dx$$

2. Find the indefinite integral. (Use  $C$  for the constant of integration.)

$$\int \frac{36}{e^{-x} + 1}$$

3. Find the indefinite integral using integration by parts with the given choices of  $u$  and  $dv$ . (Use  $C$  for the constant of integration.)

$$\int x \cdot \cos 4x \, dx$$

$$u = x, dv = \cos 4x \, dx$$

4. Find the integral. (Use  $C$  for the constant of integration.)

$$\int x^6 \ln x \, dx$$