## Assignment 11

## Oral questions

1. Exercise 34.2
2. Exercise 34.4 a
3. Exercise 34.6
4. Exercise 34.8a (but read b)
5. Find the antiderivative of $\cos ^{2}(x)$. (Hint: use the fact that $\sin ^{2}(x)+\cos ^{2}(x)=1$ and that $\cos ^{2}(x)-$ $\left.\sin ^{2}(x)=\cos (2 x).\right)$
6. Using integration by parts, find the antiderivative of $\ln (x)$. (Hint: $\ln (x)=1 \cdot \ln (x))$. You may use without proof the fact that the derivative of $\ln (x)$ is $1 / x$.

## Question to be answered in writing

1. Exercise 34.10
