## Quiz 6

Show your work, and write clearly. No textbooks, notes, or calculators.
Just as a reminder...

$$
\int u d v=u v-\int v d u
$$

1. (3 points) Find $\int x e^{x} d x$.
2. (4 points) Find $\int_{-\frac{\pi}{3}}^{\frac{\pi}{6}} x \cos x d x$.
3. (3 points) Find $\int \ln x d x$. (Hint: $u=\ln x$.)
