## Worksheet

2/18/2019
Compute the following integrals using integration by parts.
(a) $\int \ln x d x$ with $u=\ln x$ and $d v=d x$.
(b) $\int_{1}^{2} x \ln x d x$ with $u=x \ln x$ and $d v=d x$.
(c) $\int \arctan d x$ with $u=\arctan x$ and $d v=d x$.
(d) $\int_{0}^{\pi / 2} x^{2} \cos x d x$ with $u=x^{2}$ and $d v=\cos x d x$.

