7.6 Improper Integrals Group Work Target Practice

Work in groups of two or three.

1. Evaluate $\int_0^{\frac{\pi}{2}} \frac{1}{\cos(x)^2} dx.$

2. Evaluate $\int_0^\infty x e^{-x} dx$. Hint: You'll need to apply L'Hôpital's rule at the end.