

MATH 141, FALL 2010

Integrals to start with (use integration by parts):

$$\int \left(\frac{\ln(x)}{x} \right)^2 dx$$

$$\int \sqrt{x} \ln^2(x) dx$$

$$\int x e^{-x} dx$$

$$\int x^2 e^{-2x} dx$$

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

$$\int x^2 \sin(2x) dx$$

$$\int \arcsin(x) dx$$

$$\int x \arctan(x) dx$$

$$\int x^2 \arccos(x) dx$$

$$\int \frac{\arcsin(x)}{x^2} dx$$

$$\int \ln(x + \sqrt{1 + x^2}) dx$$

$$\int x \ln \left(\frac{1+x}{1-x} \right) dx$$

$$\int \sin(x) \ln(\tan(x)) dx$$