List of suggested exercises, Sections 7.1–3
April 31st

Section 7.1 Find the following integrals:

$$\#6 \qquad \int t\cos(t)\ dt$$

$$\#9 \qquad \int xe^{-x^2}\ dt$$

$$\#16 \qquad \int (2t-7)^{73}\ dt$$

$$\#22 \qquad \int \sqrt{\cos(3t)}\sin(3t)\ dt$$

$$\#24 \qquad \int \sin^3\alpha\cos\alpha\ d\alpha$$

$$\#34 \qquad \int \frac{x+1}{x^2+2x+19}\ dx$$

$$\#73 \qquad \int \frac{t}{\sqrt{t+1}}\ dt$$

Section 7.2 Find the following integrals:

$$\#3 \qquad \int t^2\sin t\ dt$$

$$\#8 \qquad \int y\ln y\ dy$$

$$\#15 \qquad \int y\sqrt{y+3}\ dy$$

$$\#19 \qquad \int \frac{\ln x}{x^2}\ dx$$

$$\#20 \qquad \int \frac{y}{\sqrt{5-y}}\ dy$$

$$\#23 \qquad \int \arcsin w\ dw$$

$$\#34 \qquad \int_0^1 \arctan y\ dy$$

$$\#37 \qquad \int_0^1 u\arcsin u^2\ du$$

Section 7.3 Find the following integrals (not using tables!):

$$\#7 \qquad \int \sin^4 x\ dx$$

$$\#33 \qquad \int \frac{1}{1+(x+2)^2}\ dx$$

$$\#1 \qquad \int e^{-3\theta}\cos\theta\ d\theta$$

$$\#38 \qquad \int ze^{2z^2}\cos(2z^2)\ dz$$