

Math 17 **B**
Kouba
Worksheet **3**

Use $\mathcal{L}\{f(t)\} = \int_0^{\infty} e^{-st} f(t) dt$ to determine the Laplace transform for each of the following functions $y = f(t)$.

- 1.) $f(t) = 1$
- 2.) $f(t) = t$
- 3.) $f(t) = t^2$
- 4.) $f(t) = t^3$
- 5.) $f(t) = e^t$
- 6.) $f(t) = e^{-2t}$
- 7.) $f(t) = te^t$
- 8.) $f(t) = \cos t$
- 9.) $f(t) = \sin 2t$