1. Solve $3 y^{\prime \prime}-11 y^{\prime}-4 y=0$ with $y(0)=2$ and $y^{\prime}(0)=0$.
2. Solve $y^{\prime \prime}-4 y^{\prime}+5 y=0$ with $y(0)=1$ and $y^{\prime}(0)=-1$.
3. Compute the Wronskian of $e^{t}$ and $t e^{t}$.
4. [3.2.24] Verify that $y_{1}=\cos 2 t$ and $y_{2}=\sin 2 t$ are both solutions to $y^{\prime \prime}+4 y=0$. Do $y_{1}$ and $y_{2}$ form a fundamental set of solutions?
5. [Misc. Prac.] Solve $\frac{d y}{d x}=3-6 x+y-2 x y$.
