

Name:

1. Solve the following initial value problem.

$$\begin{aligned}y'' - 4y' + 4y &= 0 \\y'(0) &= 1 \\y(0) &= 0\end{aligned}$$

2. (a) Compute the Wronskian  $W(t, t^2, t^3)$ .

- (b) Are the functions  $t$ ,  $t^2$ , and  $t^3$  linearly independent?