Math 344 Quiz 2

Names: _____

1. Solve $x^3 y''' - xy' = 0$.

2. Find a d.e. with real coefficients and solutions x^2 and $\dfrac{\cos(3\ln x)}{x^3}$ (there may also be other solutions).

3. Solve $x^2 y'' - 6y = x^2$.

4. Solve $tf(t) = 3 \int_0^t f(t-x)\, dx$.