

Name _____ ID _____ Section _____

Q1. Verify that $x, x^{-2}, x^{-2} \ln x$ form a fundamental set of solutions of $x^3 y''' + 6x^2 y'' + 4xy' - 4y = 0$ on $(0, \infty)$.

Q2. Verify that $y_p = x^2 + 3x$ is a particular solution of $y'' - 6y' + 5y = 5x^2 + 3x - 16$