

Name: _____ ID #: _____ Serial #: _____

1. Solve the DE $2xyy' = 5x^2 + 3y^2$.

2. (a) Find by inspection a particular solution of the DE $4y'' + 2y' + y = 8$.
(b) Verify that $y = 2x^2 - 8x$ is a particular solution of the DE $4y'' + 2y' + y = 2x^2$.
(c) Find a particular solution of $4y'' + 2y' + y = x^2 - 8$.