

**MATH 046 020-QUIZ 4, SPRING 2018**

Name: \_\_\_\_\_

1 (5 pts). Determine if the ODE is exact and compute the solution if it's exact:

$$(t^2 - x)dt - tdx = 0, \quad x(1) = 5$$

2 (5 pts). Determine if the ODE is exact and compute the general solution if it's exact:

$$(y + 2xy^3)dx + (1 + 3x^2y^2 + x)dy = 0.$$