

**MATH 046 020-QUIZ 3, SPRING 2018**

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

1 (5 pts). Find the general solution of the ODE:

$$y' = y + e^{3x}$$

2 (5 pts). Suppose you opened a savings account with the annual interest rate 2% and deposited \$10000 at the time you opened it. Suppose the interest compound continuously in time and you deposit \$800 into this account annully. What's yoru net profit for this account after 10 years? *You may use  $e^{0.2} = 1.2$ .*