Name: _____ Student Number: _____

1. The balance in a savings account after t years is given by the formula $A(t) = 5000e^{0.04t}$.

   (a) (2 points) How much money will be in the account after 10 years?

   (b) (3 points) How fast is the balance growing after 10 years? (Hint: You can either differentiate or use the fact that the exponential model satisfies a certain differential equation).