Homework I

1. Put a potato into an oven. The temperature of the potato at is and it will heat up. Denote the temperature at as . The temperature of the oven is a constant

Newton has a law stating that the heat transfer from oven to potato (proportional to the change of per unit time is proportional to the temperature difference . Therefore we can write down an equation:

Solve .

1. Arfken Exercise 7.2.3
2. The function satisfies

Solve

1. Solve the equation of