## WRITTEN HOMEWORK 4

## MATH 46 SEC 030

This homework will be due on Thursday April 30th.

**Question 1.** A cell of some bacteria divides into two cells every 40 minutes. The initial population is 200 bacteria. Express the population after t minutes as a function of t.

**Question 2.** Find the orthogonal trajectories of the family of curves  $y^2 = 6cx$ .