Group Hw Problem: Dynamical Systems

Prof. Donnay

Group Members:
1. ______________________
2. ______________________
3. ______________________
4. ______________________

TA Session Times: Wednesday 7:30 - 9pm and Thursday 3- 4:30 pm in Rm. 336.
What time/day will your group meet?

Group Problem: Submit one answer for the whole group. Each person will sign
the submission to indicate they contributed to the finished product.

A fixed point is said to be attracting if points that start near the fixed point
approach the fixed point. A fixed point is repelling if points that start near the fixed
point move away from the fixed point.

For the fixed point(s) you found for the map \( f(x) = 2x(1 - x) \), determine if they
are attracting or repelling. Do this numerically: take several initial points near the
fixed point, and determine if the iterates approaches or moves away from the fixed
point. Make a table of your values where you give \( x_0, x_{10} \) and state what happens to
the iterates.