

Homework 4: Sharkovsky's Theorem

*Week 3**Mathcamp 2014***Homework Problems.**

1. A natural question to ask, given Sharkovsky's theorem, is whether its converse holds: i.e. whether given any $m \in \mathbb{N}$, there is some function f_m that only has the periodic points forced by Sharkovsky's theorem. (In other words, if x is a periodic point of f_m with period n , then $m \triangleleft n$.)

Find such a function. (Hint: consider the cutoff tent maps from homework 2!)