

## Homework 17

### Web Problem #7

1. How long does it take for a  $^{235}\text{U}$  reactor at light-bulb power (100 W) to reach 1 MW and 1 GW with a 0.15(\$) reactivity insertion?
2. A control rod insertion creates an asymptotic period of -200 s. What is  $k_{eff}$  after the insertion and the worth of the insertion in \$?