LECTURE 27 CHECKPOINTS

1. In your chaos project, you will be able to investigate each of the phenomena you have learned in your chaos study so far. Name one, please.
   - period doubling
   - bifurcation plot
   - universal (5 and 6)
   - sensitivity to IC
   - strange attractors

2. When is HW27 (GROUP HW) due and when is the project paper due?
   - Nov. 16 (10 days)
   - Nov. 30 (24 days)

3. Name another phenomenon.
   - See 1

4. What do the terms -Bdx/dt and Rcosωt represent and where did we see them before?
   - damping term in damped harmonic oscillator (friction, etc.)
   - driving term in driven " " (Sinusoidal)

5. To what does the term Rcosωt correspond in the hanging steel beam apparatus?
   - external electromagnetic vibration generator

6. What is Δt, for 100 time steps between 0 and T, in terms of ω?
   \[ Δt = \frac{1}{100} T = \frac{1}{100} \frac{2\pi}{\omega} \]

7. Name another phenomenon.
   - See 1

8. What computer language/program will your group be using for this project?
   - MATLAB/JAVA/PYTHON/C/C++/et c.

9. Name another phenomenon.
   - See 1

10. Name another phenomenon.
    - See 1