AP PHYSICS

Name: _____

Period: _____ Date: _____

DEVIL PHYSICS

BADDEST CLASS ON CAMPUS

GIANCOLI READING ACTIVITY

Sections 10-11 to 10-12 Read sections 10-10 to 10-13 in your textbook.

1. Write a definition for each of the terms listed below:
   a. viscosity _____
   b. coefficient of viscosity _____
   c. velocity gradient _____
   d. Poiseuille's equation _____
   e. poise _____
   f. volume rate of flow _____
2. Answer the following questions:
   a. What causes viscosity between fluids? In gases? _____
   b. What are the SI and cgs units for viscosity? Also give the formal name for the cgs unit. _____

c. What happens to the viscosity of motor oil as the temperature increases? _____

_____

d. The rate of flow of fluid in a round tube is dependent on what three things?

i. _____

ii. _____

iii. _____

e. Poiseuille's equation applies during _____ flow.

f. What is the difference in mass flow rates between two pipes if one has ¼ the radius of the other one, assuming the pressure differential remains the same? _____

_____

g. How does the body control the mass flow of blood? _____

_____

h. What must happen to maintain the same blood-flow rate when arterial radii are decreased with arteriosclerosis and cholesterol buildup? How is this accomplished? _____

_____

_____

3. This assignment may be typed or neatly printed. Drawings may be freehand, but try to make use of the 'Shapes' or 'Insert Clipart" functions of MS Word. If you submit this assignment electronically, the filename must be in the following format, "LastnameFirstinitialPerXReadActX-X". You ***do not*** need include a copy of these instructions with the assignment you hand in.