PreAP: due Thur, Oct 6 (Assigned: Tues., Oct 4)
Reg: due Tues., Oct 7 (Assigned: Wed., Oct 5)

Force and Newton's Laws

1. Inertia	A. An action that can causes motion.
2. Mass	B. Force pulling all object toward each other.
3. Gravity	C. The amount of matter in an object
4. Net force	D. Total of all of the forces on an object.
5. Force	E. Ability of an object to resist change of motion.

6. Number these from least (1) to most (5) inertia.

A base-ball	A small car	A truck	A feather	A large train

Which of Newton's Three Laws Applies?

__ 7. When you put a book on a table the table pushes on the book.

__ 8. A person is pushed forward into their seatbelt when a car stops.

__ 9. A larger car takes more force to move.

__ 10. A person leans on a wall and the wall pushes back.

__ 11. A brick sits on a table until you push on it.

Understanding Net Force

	A. Find the net force	**B. Which way will it move?**	**C. Is it at equilibrium?**
30 N ← M → 25 N	12. (Instructions above.)		
6 N ← M → 8 N	13.		
15 N ← M → 15 N	14.		

15. A 15 kg object is being pulled to the left by two 60 N forces. Another 80 newton force is pulling to the right.
    A. Draw the situation
    B. Find the net force
    C. Find the acceleration of the object.

16. An 8 kg object has an acceleration of 2 m/s^2.
    A. Find the net force.

    B. If a 20 Newton force is pulling to the right, which way will friction pull?
    C. Find the force of friction.

17. Find the weight of a 12 kg object.

18. Find the mass of a 120 N object.

18. Are these at equilibrium or not?
    A. ____An object at rest
    B. ____An object with 2 m/s^2 of acceleration.
    C. ____A car with cruise control on.
    D. ____An object with a 2 N force pulling to the right and a 2 N force pulling to the left.