

1. What is a **force**?
2. What two quantities characterize a force?
3. What is meant by an **unbalance force**?
4. What is Newton's first law of motion in your own words?
 - (a) What does Newton's first law say about an object at rest?
 - (b) What does Newton's first law say about an object that is moving with constant velocity?
5. What does **net force** mean?
6. What does **no net force** mean?
7. If an object is at rest, what happens if there is an unbalanced force on the object?
8. What is **friction**?
9. If an object is at rest, what happens if there is NOT an unbalanced force on the object?
10. If an object is moving and there is NOT an unbalanced force on the object, what happens to the object?
11. What is meant by **inertia**?
12. Why is Newton's First Law referred to as the **law of inertia**?
13. *****
14. What is **mass**?
15. What are the units of measurement for mass?
16. What is the formula for Newton's second law of motion for a single force?
17. According to Newton's second law, is acceleration proportional or inversely proportional to force?
18. According to Newton's second law, is acceleration proportional or inversely proportional to mass?
19. If a force is applied to an object, what direction is the object's acceleration?
20. What is the unit called that is used to measure force and what are its units?
21. What is the formula for Newton's second law of motion for several forces?
22. In words, what is Newton's second law of motion for several forces?
23. What will move an object further: a) two forces in the same direction, or b) two forces in opposite directions?
24. *****
25. What is Newton's third law of motion — you should give both components of it.
26. Why do action-reaction forces not cancel out to produce 0 acceleration?