Chapter 4 Concept Review

Directions: Answer the following questions using your notes and textbook

1. _________ (4th century BC– first to suggest force causes motion.

2. Before 16th century though Earth must be in its natural ______________ place (a force large enough to move it was unthinkable)

3. Nicolaus _________________ (1473-1543)- said Earth and other planets move around sun.

4. The foremost scientist of the late-Renaissance Italy was ________________

5. ___________ – is any push or pull.

6. Friction– name given to the _____________ that acts between materials that touch as they move past each other.

7. Galileo argued that only when friction is present– as it usually is– a force needed to keep an object _______________.

8. He stated– every material object resists change to its state of motion– called ____________.

9. Newton’s First Law of Motion– usually referred to as the law of ________________

10. Every object continues in a state of ___________, or of _____________ in a straight line at constant speed, unless it is compelled to change that state by ____________ exerted upon it.

11. Simply put– things tend to __________ doing what they’re already doing.

12. ________________ -a measure of space (units like cubic meters, liters, etc.)

13. ___________ – measurement of amount of material in an object and depends on number of and kind of atoms that compose it.

14. Weight– a measure of the ________________ force acting on the object.

15. Weight = ____ x ____

16. Force of gravity (Fg) = _____ x _____

17. __________ ______________– combination of all forces acting on an object’s state of motion

18. _________________– when forces add up to a net force of zero.
19. Stationary book resting on table—Force of ____________ is “pushing down” on book but balanced by equal force in opposite direction (force of table pushing up) this “pushing up” force is called the _______________ force or _______________ force.

20.

21.

22. The net force in the diagram = ________

23. Vertical load- upward force equals force of ____________ (addition)

24. Non-vertical load— as ________________ increases, the scale reading would increase to maintain upward pull.

25. Form ________________ to calculate the upward force (use ________________ as resultant).