

Name _____ Date _____ Period _____

Chapter 4 Concept Review

PHYSICS

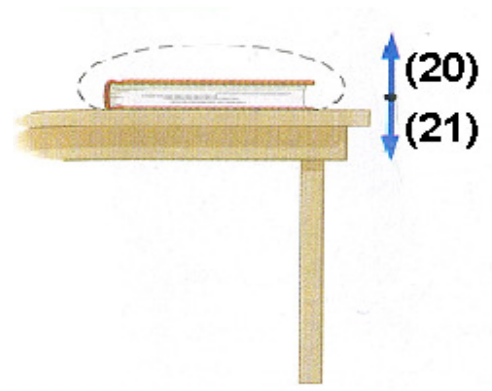
Directions: Answer the following questions using your notes and textbook

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 (F_g) = ____ 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.

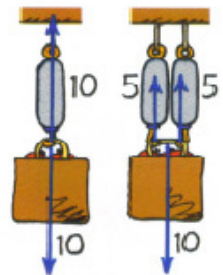
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21.

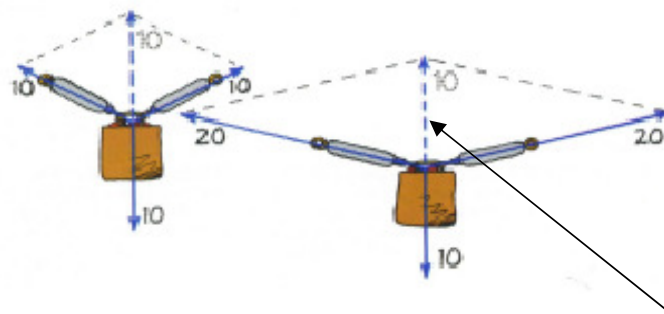


22. The net force in the diagram = _____

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).