

Force Diagrams: Name _____

FF

Period _____

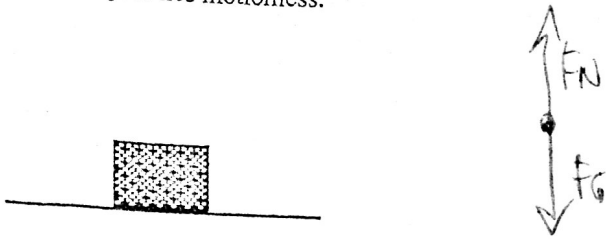
WS 1

- Identify all of the forces that are acting on the following objects: F_g , F_n , F_t , F_{app} , F_f ...
- Draw a Force diagram that includes arrows for each force acting on the object and the resultant of all of the forces.

FORCE DIAGRAM

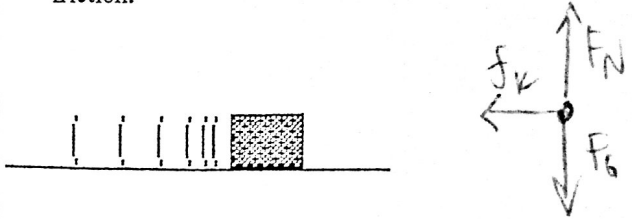
FORCE DIAGRAM

1. An object lies motionless.



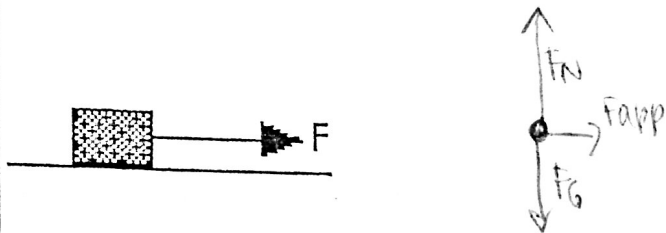
$\Sigma F = 0$

6. An object slows down while moving across a surface due to friction.



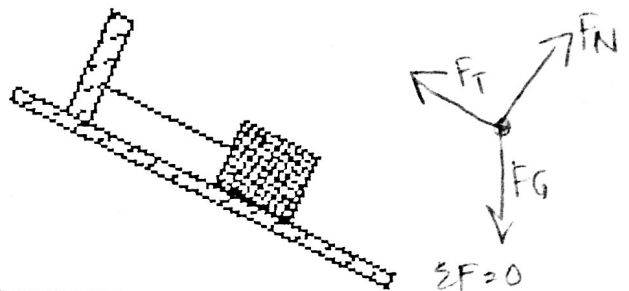
$F_{net} = \leftarrow$

2. The object is pulled by a force parallel to the surface (no friction).



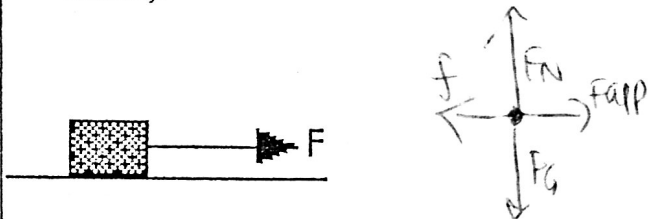
$\Sigma F = \rightarrow$

7. An object is held motionless by a rope on an incline



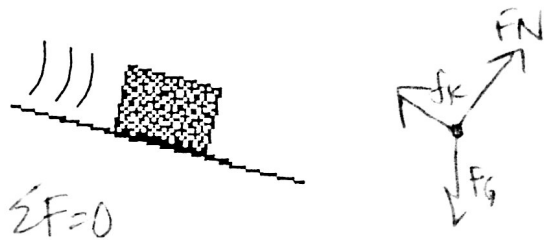
$\Sigma F = 0$

3. The object is pulled by a force parallel to the surface (with friction).



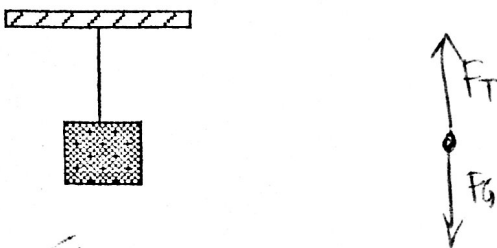
ΣF UNKNOWN

8. An object slides down an incline at a constant speed.



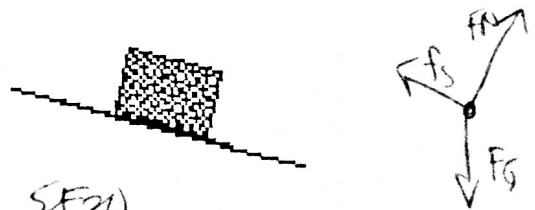
$\Sigma F = 0$

4. An object is suspended from the ceiling.



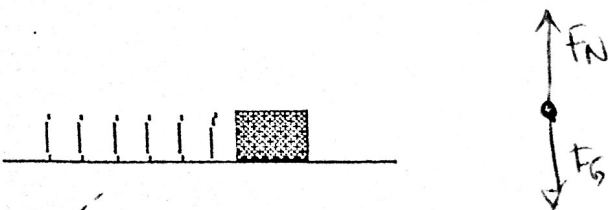
$\Sigma F = 0$

9. The object is motionless.



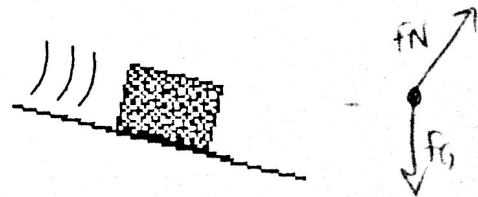
$\Sigma F = 0$

5. Object slides at constant speed across a surface without friction



$\Sigma F = 0$

10. An object accelerates as it slides down a frictionless incline.



$\Sigma F = \rightarrow$