

Work each of the following problems. SHOW ALL WORK.

1. Draw the free-body diagram for a ball in flight. Ignore air resistance.



2. Draw the free-body diagram for a book resting on a table.



3. Draw the free-body diagram for a sled being pushed across an icy, frictionless surface.



4. Draw the free-body diagram for a tire swing held at rest.



Work each of the following problems. SHOW ALL WORK.

5. Draw the free-body diagram for an elevator being accelerated upward.



6. Draw the free-body diagram for a hanging mass accelerating downward but attached to a string.



7. Draw the free-body diagram for a box being pushed across a horizontal surface at a constant velocity.



8. Draw the free-body diagram for a puck, already in motion, slowing down as it slides across the floor.

