



## JETS Challenge 122

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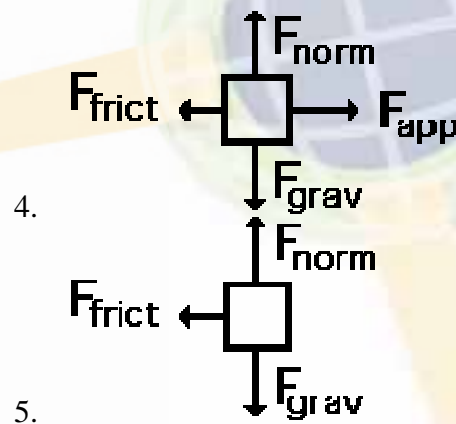
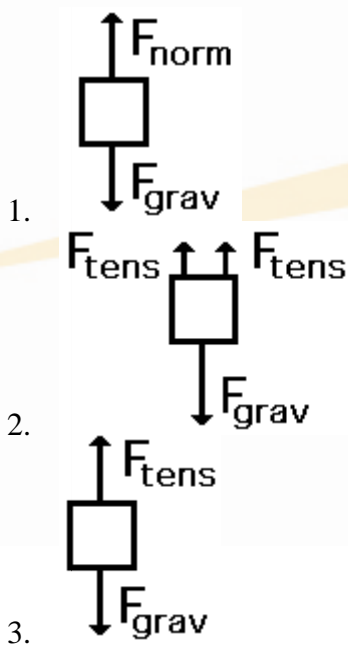


### Resolving Forces: Free Body Diagrams

Free-body diagrams are diagrams used to show the relative magnitude and direction of all forces acting upon an object in a given situation.

**The Challenge: Draw the free body diagrams of the following:**

1. A book is at rest on a table top. Diagram the forces acting on the book.
2. A girl is suspended motionless from the ceiling by two ropes. Diagram the forces acting on the combination of girl and bar.
3. A college student rests a backpack upon his shoulder. The pack is suspended motionless by one strap from one shoulder. Diagram the vertical forces acting on the backpack.
4. A force is applied to the right to drag a sled across loosely-packed snow with a rightward acceleration. Diagram the forces acting upon the sled.
5. A car is coasting to the right and slowing down. Diagram the forces acting upon the car.



# JETS

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