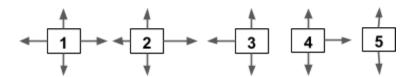
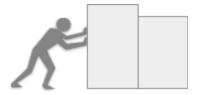
Even More Forces

1. Free Body Diagrams are given for objects 1-5 below.



- a. Identify which of the objects could be moving to the right.
- b. Identify which objects could be moving to the left.
- c. Identify which of the objects have a rightward acceleration.
- d. Identify which of the objects have a leftward acceleration.
- e. Identify which of the objects are not accelerating.
- 2. Noah pushes two large boxes across a frictionless surface. The right box has a mass of 20 kg and the left box has a mass of 30 kg. The boxes accelerate by 1.0 m/s².



- a. Draw a free body diagram for the right box.
- b. Calculate the force of the left box on the right box.
- c. Draw a free body diagram for the left box.
- d. Calculate the force of Noah pushing on the left box.

3.	-	(m=50 kg) is riding the Power Tower at Cedar Point. Draw a free body diagram for her as she accelerates upward from the ground at 6.0 m/s².
	b.	Calculate the force of the seat on Lydia during this acceleration.
	C.	Draw a free body diagram for her as she comes to rest at the top of the Power Tower.
	d.	Lydia feels a 300 N force from the seat as she comes to rest. Calculate her acceleration.
	e.	Draw a free body diagram for her as the Power Tower is lowered back to the ground at a constant speed.
	f.	Determine her acceleration and the force of the seat on Lydia as she is lowered at a constant speed.