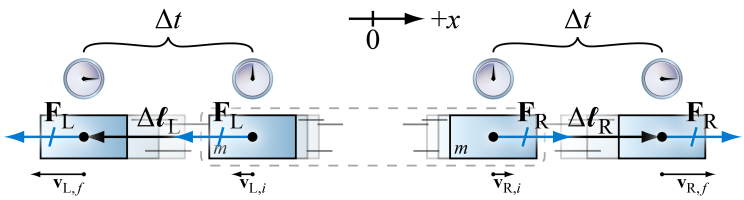
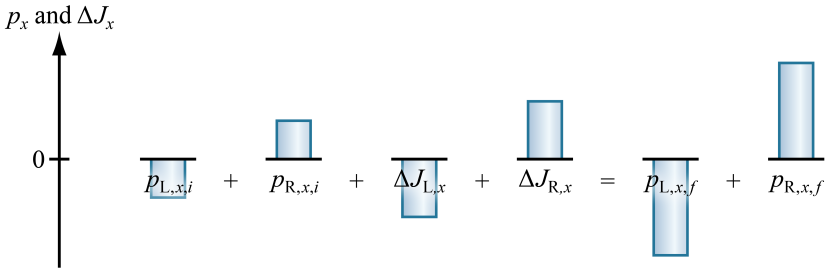
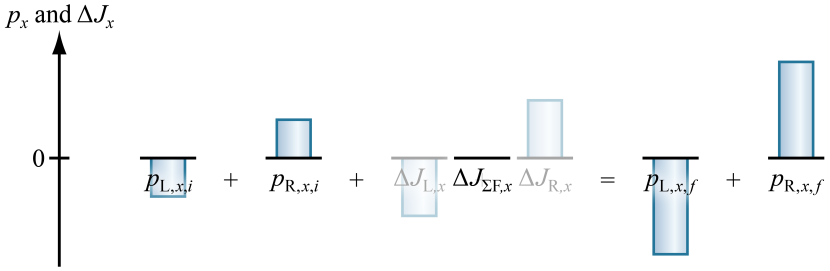
Force sums are not always suitable for calculating work



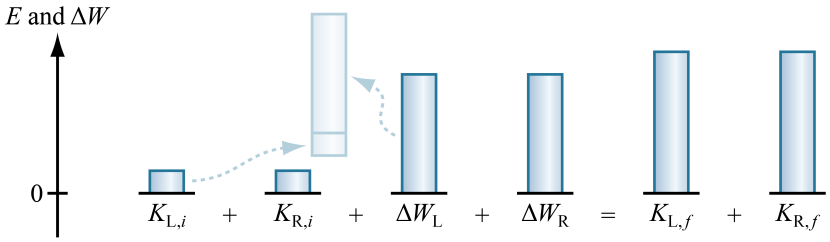
The sum of the individual impulses delivered by the individual forces acting on the individual objects in the system explains the change in the total momentum of the system.



The impulse delivered by the net force acting on the system explains the change in the total momentum of the system.



The sum of the individual works performed by the individual forces acting on the individual objects in the system explains the change in the total energy of the system.



The work computed using the net force acting on the system explains . . . uh oh.