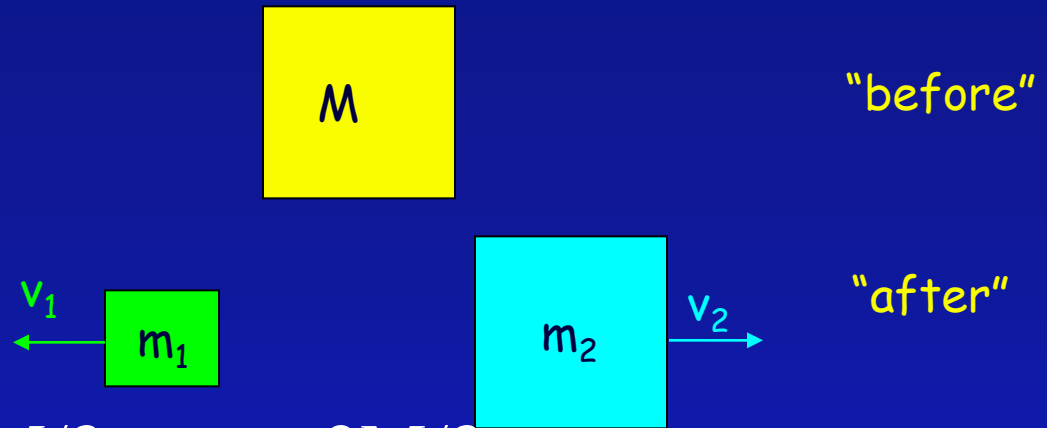


Explosions

$A=1, B=2, C=same$



- Example: $m_1 = M/3$ $m_2 = 2M/3$
- Which block has larger |momentum|?
 - * Each has same |momentum|
- Which block has larger speed?
 - * mv same for each \Rightarrow smaller mass has larger velocity
- Which block has larger kinetic energy?
 - * $KE = mv^2/2 = m^2v^2/2m = p^2/2m$
 - * \Rightarrow smaller mass has larger KE
- Is mechanical (kinetic) energy conserved?
 - * NO!!

$$0 = p_1 + p_2$$
$$p_1 = -p_2$$