

# Summary

- Collisions and Explosions
  - Draw “before”, “after”
  - Define system so that  $F_{\text{ext}} = 0$
  - Set up axes
  - Compute  $P_{\text{total}}$  “before”
  - Compute  $P_{\text{total}}$  “after”
  - Set them equal to each other

- Center of Mass (Balance Point)

$$\vec{r}_{cm} = \frac{m_1 \vec{r}_1 + m_2 \vec{r}_2}{\sum m_i}$$