

4/6/11 MOMENTUM - INTRODUCTION



IF WE ARE MOVING @ THE SAME SPEED, WHO IS BETTER OFF IF THERE IS A COLLISION?

- MR K - WHY → WHY DOES MR. K HAVE MORE "BASHING" POWER?

MORE MASS

THE PHYSICS TERM FOR "BASHING POWER" IS MOMENTUM.

- MOMENTUM DEPENDS ON TWO THINGS:

- AN OBJECT'S MASS
- AN OBJECT'S VELOCITY

MOMENTUM = MASS X VELOCITY

$$P = m \times v$$

$$\begin{array}{c} \text{kg} \times \text{m/s} \\ \swarrow \quad \searrow \\ \hline \text{kg} \cdot \text{m} \\ \text{SECONDS} \end{array}$$

DIRECTION MATTERS

WE ALWAYS NEED TO SPECIFY A
DIRECTION WHEN REFERRING TO SOMETHING'S
MOMENTUM.