

PP168 (from Hw)

7.  $m = 7.2 \times 10^{-25} \text{ kg}$

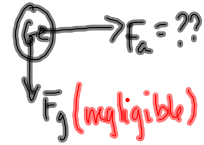
$v_1 = 0 \text{ m/s}$

$\vec{v}_2 = 7.3 \times 10^6 \text{ m/s [E]}$

$\Delta t = 5.5 \times 10^{-6} \text{ s}$

$\vec{F}_a = ??$

→ + [E]



$\vec{F}_{\text{net}} = m\vec{a}$

$F_a = ma$  ← find acc.  
① find acc  
② find  $F_a$

① Find acceleration:

$$\vec{a} = \frac{\Delta \vec{v}}{\Delta t}$$

$$\vec{a} = \frac{v_2 - v_1}{\Delta t}$$

$$\vec{a} = \frac{7.3 \times 10^6 \text{ m/s [E]} - 0}{5.5 \times 10^{-6} \text{ s}}$$

$$\vec{a} = 1.327 \times 10^{12} \text{ m/s}^2 \text{ [E]}$$

② Find  $F_a$ :

$$\vec{F}_{\text{net}} = m\vec{a}$$

$$F_a = ma$$

$$F_a = (7.2 \times 10^{-25} \text{ kg})(1.327 \times 10^{12} \text{ m/s}^2)$$

$$F_a = 9.6 \times 10^{-13} \text{ N}$$
 ← magnitude

$$\vec{F}_a = 9.6 \times 10^{-13} \text{ N [E]}$$
 ← vector

To Do:

- ① Finish Animation worksheet + Pass in (TUES)
- ② Finish PP168
- ③ Calculator Pad  $\Rightarrow$  Newton's Laws.  
Start + keep going.....