

SiQuENC: Impulse-momentum theorem (algebra-based)

Neatly and graphically represent situation(s)

Carefully read the problem three times.

For each situation, draw system and relevant aspects of environment.

use dashed bubble(s) to indicate object(s) in system.

indicate positive direction(s).

Identify requested unknowns.

Illustration of **initial** situation

Illustration of **final** situation

Graphically represent quantities and their relationships

Bar chart(s)

Initial momenta and externally supplied impulse

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.....

.....

Bar chart(s)

Final momenta

.....

.....

.....

Identify relevant allowed starting point (in) equation(s)

$$\Sigma \vec{p}_i + \left(\sum_{\substack{\text{EXT} \\ \text{ON SYS}}} \vec{F} \right) \Delta t = \Sigma \vec{p}_f$$

Analyze

| | Object | $p_x = mv_x$ | $p_y = mv_y$ |
|----------|---------|---------------------------|---------------------------|
| 1 | | | |
| 2 | | | |
| 3 | Impulse | $\Delta J_{\Sigma F_x} =$ | $\Delta J_{\Sigma F_y} =$ |
| Σ | | | |

| | Object | $p_x = mv_x$ | $p_y = mv_y$ |
|----------|--------|--------------|--------------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| Σ | | | |

(Continue on separate sheet).

Communicate