1° Honors Physics - Kinematics quiz 1 09-19-02

A student pushes a cart at 1.75 m/s. Then the fan turns on and slows the cart to 0.62 m/s in 2.35 s. What was its acceleration during this time?

$V_i = 1.75 \frac{m}{s}$

$V_f = 0.62 \frac{m}{s}$

$t = 2.35 s$

$a = \_\_\_\_ \frac{m}{s^2}$

$V_f = V_i + at$

$a = \frac{V_f - V_i}{t}$

$= \frac{0.62 \frac{m}{s} - 1.75 \frac{m}{s}}{2.35 s}$

$\boxed{a = -0.481 \frac{m}{s^2}}$

3° Honors Physics - Kinematics quiz 1 09-19-02

A student pushes a cart at 2.75 m/s. Then the fan turns on and slows the cart to 1.42 m/s in 2.65 s. What was its acceleration during this time?

$V_i = 2.75 \frac{m}{s}$

$V_f = 1.42 \frac{m}{s}$

$t = 2.65 s$

$a = \_\_\_\_ \frac{m}{s^2}$

$V_f = V_i + at$

$a = \frac{V_f - V_i}{t}$

$= \frac{1.42 \frac{m}{s} - 2.75 \frac{m}{s}}{2.65 s}$

$\boxed{a = -0.502 \frac{m}{s^2}}$

8° Honors Physics - Kinematics quiz 1 09-19-02

A student pushes a cart at 2.75 m/s. Then the fan turns on and slows the cart to 0.62 m/s in 2.83 s. What was its acceleration during this time?

$V_i = 2.75 \frac{m}{s}$

$V_f = 0.62 \frac{m}{s}$

$t = 2.83 s$

$a = \_\_\_\_ \frac{m}{s^2}$

$V_f = V_i + at$

$a = \frac{V_f - V_i}{t}$

$= \frac{0.62 \frac{m}{s} - 2.75 \frac{m}{s}}{2.83 s}$

$\boxed{a = -0.753 \frac{m}{s^2}}$