

### Answer on Question #46326, Physics, Other

#### Question:

A bus starting from rest moves with a uniform acceleration of  $0.1 \text{ m/s}^2$  for two minutes. Find the speed acquired by the bus.

#### Answer:

Acceleration by definition equals:

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

where  $\Delta v$  is change of velocity,  $\Delta t$  is time interval.

Therefore:

$$v = a\Delta t = 0.1 \frac{\text{m}}{\text{s}^2} \cdot 120 \text{ s} = 12 \frac{\text{m}}{\text{s}}$$

Answer:  $12 \frac{\text{m}}{\text{s}}$