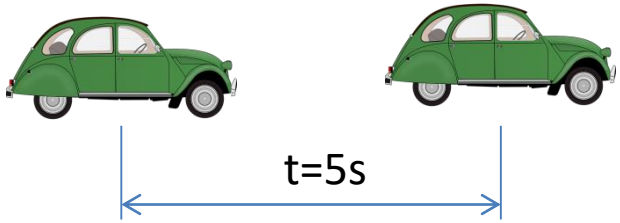
Ubrzanje

Goran Ivković, profesor fizike

Ubrzanje



$v_0 = 10\ \frac{m}{s}$ $v = 25\ \frac{m}{s}$

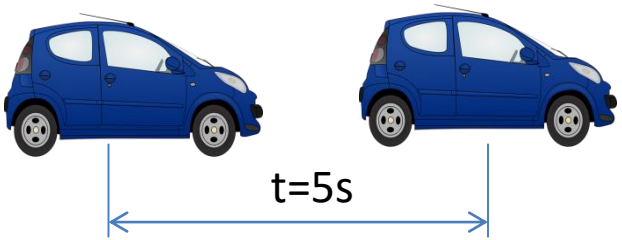
UBRZANO

$\Delta v = v - v_0$

$\Delta v = 25\ \frac{m}{s} - 10\ \frac{m}{s}$

$\Delta v = 15\ \frac{m}{s}$

Automobil je povećao brzinu za $15\ \frac{m}{s}$



$v_0 = 30\ \frac{m}{s}$ $v = 20\ \frac{m}{s}$

USPORENO

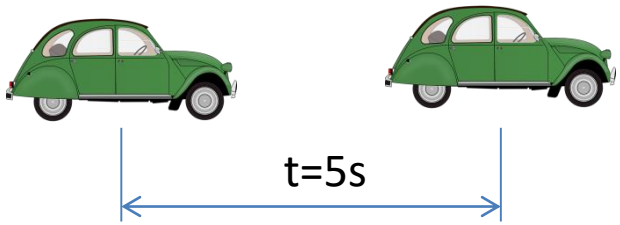
$\Delta v = v - v_0$

$\Delta v = 20\ \frac{m}{s} - 30\ \frac{m}{s}$

$\Delta v = -10\ \frac{m}{s}$

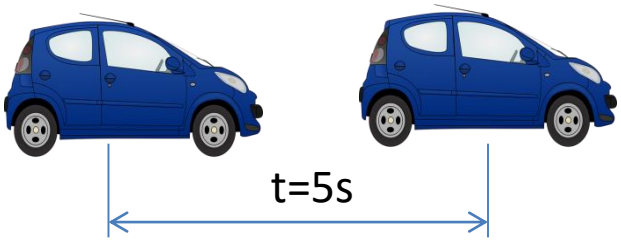
Automobil je smanjio brzinu za $10\ \frac{m}{s}$

Ubrzanje



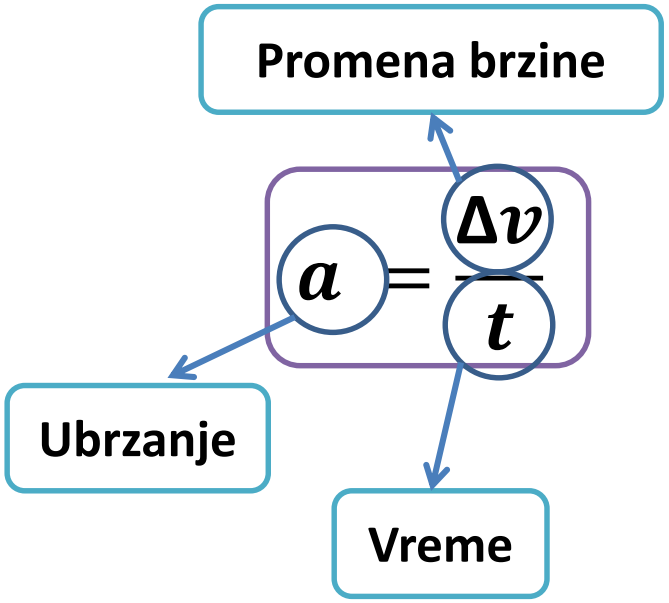
$v_0 = 10\ \frac{m}{s}$ $v = 25\ \frac{m}{s}$

$\Delta v = 15\ \frac{m}{s}$



$v_0 = 30\ \frac{m}{s}$ $v = 20\ \frac{m}{s}$

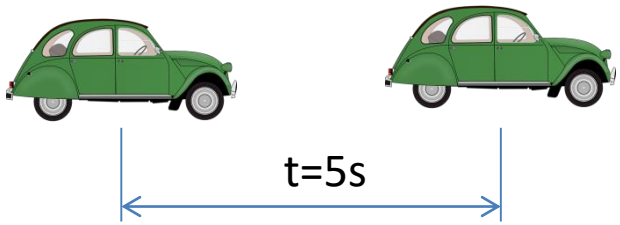
$\Delta v = -10\ \frac{m}{s}$



Ubrzanje je **promena brzine** u **jedinici vremena**.

Oznaka za ubrzanje je **a**, a merna jedinica je $\frac{m}{s^2}$

Ubrzanje



$v_0 = 10\ \frac{m}{s}$

$v = 25\ \frac{m}{s}$

$\Delta v = 15\ \frac{m}{s}$

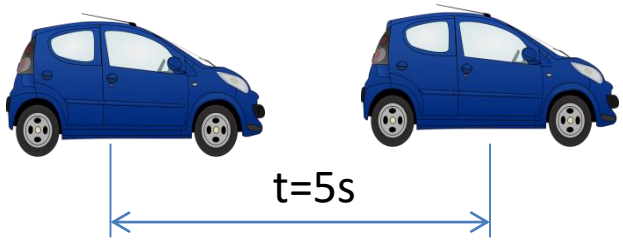
$a = \frac{\Delta v}{t}$

$a = \frac{15\ \frac{m}{s}}{5\ s}$

$a = 3\ \frac{m}{s^2}$

UBRZANO

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



$v_0 = 30\ \frac{m}{s}$

$v = 20\ \frac{m}{s}$

$\Delta v = -10\ \frac{m}{s}$

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

$a = \frac{-10\ \frac{m}{s}}{5\ s}$

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

USPORENO

Ubrzanje

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

$$2 = \frac{6}{3}$$

$$\Delta v = a \cdot t$$

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