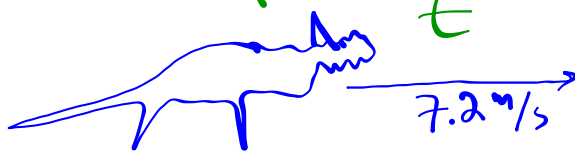


Acceleration Problems 2

$$a = \frac{(v - v_0)}{t}$$


A blue line drawing of a car is shown from the side, facing right. Below the car, a horizontal arrow points to the right, labeled "7.2 m/s".

4.2 m/s² for 11.5 s
what is final velocity?

1a) $v_0 = 7.2 \text{ m/s}$ $a = 4.2 \text{ m/s}^2$ $t = 11.5 \text{ s}$

1b) v

2) $a = \frac{(v - v_0)}{t}$

* notes

3) $4.2 = \frac{v - 7.2}{11.5}$

4) algebra...

$$(11.5)(4.2) = v - 7.2$$

$$48.3 = v - 7.2$$

$$v = 55.5 \frac{\text{m}}{\text{s}}$$

along the street

proportions...

$$\frac{4.2}{1} = \frac{v - 7.2}{11.5}$$

* NOTE!

$$(4.2)(11.5) = (v - 7.2)1$$

$$(4.2)(11.5) = v - 7.2$$

$$48.3 = v - 7.2$$

$$+ 7.2 \quad + 7.2$$

$$55.5 \frac{\text{m}}{\text{s}} = v$$

along the street

5) $a = \frac{(v - v_0)}{t}$

$$= \frac{55.5 - 7.2}{11.5} = \frac{47.8}{11.5} \approx 4.2 \checkmark$$

After the problem set:

	initial v	final v	initial pos.	final pos.	initial t	final t
1						
2						
3						
4						
5						