

F12-1

D16

D692

$$v_2 := 10 \frac{m}{s} \quad v_1 := 35 \frac{m}{s} \quad t_2 := 15 s \quad t_1 := 0 s$$

$$a_c := \frac{v_2 - v_1}{t_2 - t_1} = -1.6667 \frac{m}{s^2}$$

F12-2

$$s_0 := 0 m \quad v_0 := 15 \frac{m}{s} \quad s := 0 m \quad a_c := -9.81 \frac{m}{s^2}$$

$$s = s_0 + v_0 \cdot t + \frac{1}{2} \cdot a_c \cdot t^2$$

$$0 = 0 + 15 \cdot t + 0.5(-9.81) \cdot t^2$$

$$0.5 \cdot 9.81 = 4.905$$

$$15 \cdot t - 4.905 \cdot t^2 = 0$$

$$\frac{-15 + \sqrt{15^2 - 4 \cdot (-4.905) \cdot 0}}{2 \cdot (-4.905)} = 0$$

$$\frac{-15 - \sqrt{15^2 - 4 \cdot (-4.905) \cdot 0}}{2 \cdot (-4.905)} = 3.0581$$

F12-3

$$v(t) := 4 \cdot t - 3 \cdot t^2$$

$$v = \frac{ds}{dt}$$

$$v \cdot dt = ds$$

$$\int_0^4 v(t) dt = -32$$

F12-4

$$v(t) := (0.5 \cdot t^3 - 8 \cdot t)$$

$$a := \frac{d}{dt} v(t) = \frac{2 \cdot (-8 + t^2) + t^2}{2}$$

$$t := 2$$

$$\frac{2 \cdot (-8 + t^2) + t^2}{2} = -2$$

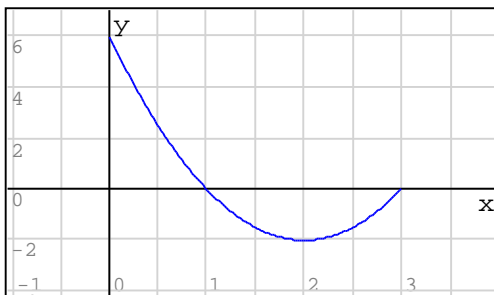
F12-5

$$s(x) := 2 \cdot x^2 - 8 \cdot x + 6$$

$$v := \frac{d}{dx} s(x) = 4 \cdot (-2 + x)$$

$$0 = 4 \cdot (-2 + x)$$

$$2$$



$$s(0) = 6$$

$$s(2) = -2$$

$$s(3) = 0$$

$$dt := 6 + 2 + 2 = 10$$

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if (x ≥ 0) ∧ (x ≤ 3)
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$$2 \cdot x^2 - 8 \cdot x + 6$$

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else
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error("No definido")
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Use shift más scroll
para cambiar escala X.