

①

Datos

$$T = 8 \text{ seg}$$

$$u = 45 \text{ kg}$$

$$v = 60 \text{ m/s}$$

$$a = (45)(60)$$

$$a = 2700 \text{ NW}$$

$$a = \frac{60}{8} = 7.5$$

$$F = (45)(7.5)$$

$$F = 337.5$$

$$I = (337.5)(8 \text{ seg})$$

$$I = 2700$$

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②

Datos

$$m = 50 \text{ Kg}$$

$$v = 2.4 \text{ m/s}$$

$$a = (50 \text{ Kg})(2.4)$$

$$a = 120 \text{ NW seg}$$

③

$$v = 20 \text{ m/s}$$

$$d = 160 \text{ m}$$

$$m = 1000 \text{ Kg}$$

$$t = \frac{160}{20}$$

$$T = 8$$

$$(20 \text{ m/s})^2 = (10 \text{ m/s}^2) + 2d(160)$$

$$a = \frac{20}{2160}$$

$$a = 1.25$$

$$F = (1000)(1.25)$$

$$F = 1250$$

$$m = 0.2 \text{ Kg}$$

$$v_i = 1 \text{ m/s}$$

$$v_f = 8 \text{ m/s}$$

$$t = 4 \text{ seg}$$

$$d = 1.6 \cdot 0.6$$

$$t = 1.79 \text{ m/s}$$

$$a = 1.6$$

$$F = 0.1 \text{ NW}$$

12. Partes  $D = 3$

$$v = 13 \text{ m/s}$$

$$y = 0.81 \text{ m/s}^2$$

$$u = \frac{3.6}{9.8} = 0.36$$

$$EC = \frac{(3.6)^2 (1.3)^2}{2}$$

$$EC = 30.42 \text{ J}$$

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$$3D = u = 60 \text{ p}$$

$$EPF00J$$

$$y = 9.8 \text{ (0.4) s}^2$$

$$n = \frac{80}{(6 \times 5)(4.81)}$$

$$n = 1.35914$$

2) Partes  $\emptyset = 3$

$$v = 13 \text{ m/s}$$

$$g = 9.8 \text{ m/s}^2$$

$$u = \frac{3.6}{9.8} = 0.36$$

$$EC = \frac{(3.6)^2 + (13)^2}{2}$$

$$EC = 30.42 \text{ J}$$

3)  $\emptyset = u = 60 \text{ m/s}$

$$IPF = 0 \text{ J}$$

$$g = 9.8 \text{ m/s}^2$$

$$h = \frac{80}{(6.5)(9.8)}$$

$$h = 1.359 \text{ m}$$

(b)  $m = 60 \text{ kg}$   
 $v = 10 \text{ m/s}$

$q = 600 \text{ kg} \cdot \text{m/s}$

$v_2 = \frac{600}{50}$

Process  
 $v = 10 \text{ m/s}$   
 $m = 60 \text{ kg}$   
 $v_1 = 10 \text{ m/s}$

$(100) (0.1)$   
 $2 \text{ kg}$

$m = 2 \text{ kg}$

$v_2 = 5 \text{ m/s}$

$v_2 = 5 \text{ m/s}$

$v_2 = 0$

$\sigma = f = 250$   
 $D = 36 \text{ m}$   
 $m = 500 \text{ kg}$

$f \cdot D = 2$

$U = \sqrt{\frac{2T \cdot D}{m}}$

$v = 6 \text{ m/s}$