

Solución

$$1 \quad 60 \div 15 = 4$$

$$2 \quad \frac{1,5 \times 10^8 - 0}{3 \times 10^8} = 2,3$$

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Tramo A:

$$50 \frac{\text{m}}{\text{s}} - 25 \frac{\text{m}}{\text{s}}$$

$$45 \text{ s} - 0$$

$$25 \frac{\text{m}}{\text{s}}$$

$$45 \text{ s}$$

$$A = 0,55 \frac{\text{m}}{\text{s}^2}$$

Tramo B:

$$50 \frac{\text{m}}{\text{s}} - 50 \frac{\text{m}}{\text{s}}$$

$$85 \text{ s} - 45 \text{ s}$$

$$B = 0 \frac{\text{m}}{\text{s}^2}$$

Tramo C:

$$0 \frac{\text{m}}{\text{s}} - 50 \frac{\text{m}}{\text{s}}$$

$$170 \text{ s} - 85 \text{ s}$$

$$-50 \frac{\text{m}}{\text{s}}$$

$$25 \text{ s}$$

$$C = -2 \frac{\text{m}}{\text{s}^2}$$

$$4 \quad v_f = v_i + g t$$

$$0 \text{ m/s} + 9,8 \text{ m/s} (4)$$

$$0 \text{ m/s} + (9,8 \text{ m/s}^2) (4 \text{ s})$$

$$0 \text{ m/s} + 39,2 \text{ m/s}$$

$$v_f = 39,2 \text{ m/s}$$

$$5 \quad v_f = 0^2 + 2 (9,8 \text{ m/s}^2) (70 \text{ m})$$

$$= \sqrt{1372}$$

$$= 37,0$$