

1

$$v = 80$$

$$d = 15$$

$$t = ?$$

$$t = \frac{60}{15} = 4$$


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2.  $v = 300.000 \text{ km/s}$   
 $x = 150.000.000$

$$v = \frac{x}{t} \rightarrow t = \frac{x}{v}$$

$$t = \frac{150.000.000 \text{ km}}{300.000 \text{ km/s}}$$

$$t = 500 \text{ s} \rightarrow \text{min.} = 8.33 \text{ minutes}$$


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3.

$$a = \frac{50 - 35}{45 - 25} = \frac{15}{20} = 0,75 \text{ m/s}$$

$$b = \frac{50 - 50}{85 - 65} = \frac{0}{20} = 0$$

$$c = \frac{0 - 50}{110 - 85} = -5$$

$$4 = x_0 + v_0 t + \frac{1}{2} a t^2$$

$$x = \frac{1}{2} g t^2 = \frac{1}{2} (9,8) (4)^2$$

$$= 78,4 \text{ m}$$

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$$S \quad v_F^2 = v_0^2 + 2a \cdot x$$

$$v_F^2 = 0^2 + 2 \times 9,8 \cdot 70$$

$$= 1372 - \frac{1}{2} = 27,44$$