

2.

Abfahrt: 9:57

 $t = \text{Ankunft} - \text{Abfahrt}$

$$v = \frac{s}{t}$$

Ankunft: 10:12

 $t = 10:12 - 9:57$

$$\underline{v = 112 \text{ km/h} = 31,11 \text{ m/s}}$$

 $s = 28 \text{ km}$ $t = 9:72 - 9:57$ $v = 31,11 \text{ m/s}$ $\underline{t = 0:15 \text{ min} = 0,25 \text{ h}}$

3.

Radfahrer 1:

$$s = v \cdot t$$

$$s = v_1 \cdot t$$

 $v_1 = 20 \text{ km/h}$

$$v_1 \cdot t = v_2 \cdot (t - t_2)$$

$$s = 20 \cdot 0,75$$

Radfahrer 2:

$$20 t = 30 t - 7,5$$

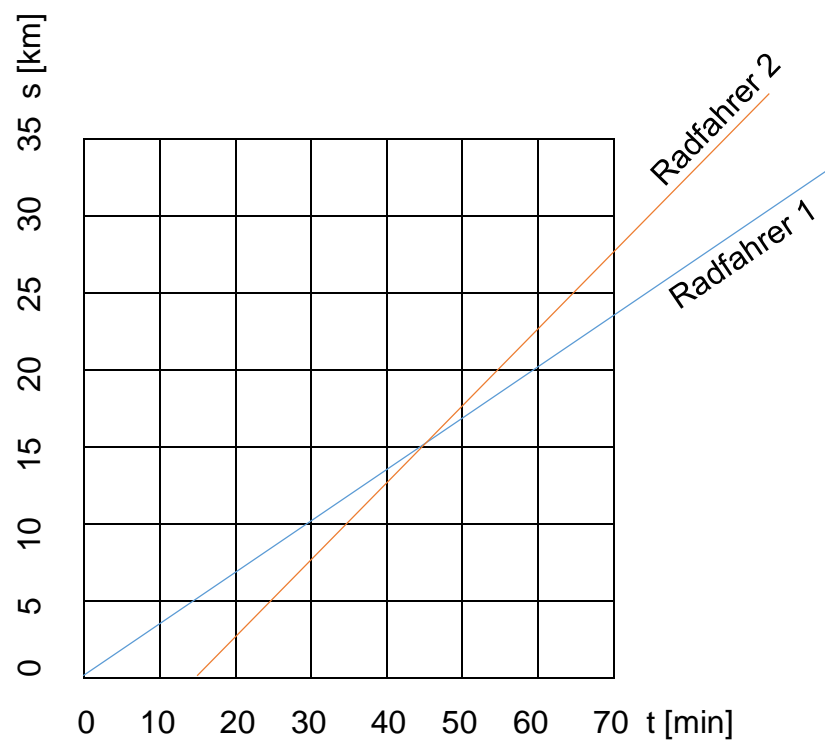
$$\underline{s = 15 \text{ km}}$$

 $v_2 = 30 \text{ km/h}$

$$7,5 = 10 t$$

 $\underline{t_2 = 15 \text{ min} = 0,25 \text{ h}}$ $\underline{t = 0,75 \text{ h} = 45 \text{ min}}$ $s = 15 \text{ km}$ $t = 45 \text{ min}$

Grafische Lösung:



4.

 $t = 2 \text{ h}$

$$s = v \cdot t$$

 $v = 120 \text{ km/h}$

$$\underline{s = 240 \text{ km}}$$

 $s = 240 \text{ km}$

5.

$s = 150 \text{ km}$

$t_1 = \frac{s}{v}$

$v_1 = 80 \text{ km/h}$

$t_1 = 1,875 \text{ h} = 1 \text{ h } 52 \text{ min } 30 \text{ s}$

$v_2 = 100 \text{ km/h}$

$t_1 = 1 \text{ h } 52 \text{ min } 30 \text{ s}$

$t_2 = \frac{s}{v}$

$\Delta t = t_1 - t_2$

$t_2 = 1 \text{ h } 30 \text{ min}$

$t_2 = 1,5 \text{ h} = 1 \text{ h } 30 \text{ min}$

$\Delta t = 22 \text{ min } 30 \text{ s}$

$\Delta t = 22 \text{ min } 30 \text{ s}$

6.

$s = 120 \text{ km}$

$v = \frac{s}{t}$

$t = 2,5 \text{ h}$

$v = 48 \text{ km/h} = 13,33 \text{ m/s}$

$v = 48 \text{ km/h}; 13,33 \text{ m/s}$

7.

$v = 123 \text{ km/h}$

$s = v \cdot t$

$t = 2,25 \text{ h}$

$s = 276,75 \text{ km} = 276 \text{ km } 750 \text{ m}$

$s = 276 \text{ km } 750 \text{ m}$

8.

$s = 8,7 \text{ km}$

$v = \frac{s}{t}$

$t = 15 \text{ min} = 0,25 \text{ h}$

$v = 34,8 \text{ km/h}$

$v = 34,8 \text{ km/h}$

9.

$s = 30 \text{ km}$

$t = \frac{s}{v}$

$v = 120 \text{ km/h}$

$t = 0,25 \text{ h} = 15 \text{ min}$

$t = 15 \text{ min}$

10.

$t = 0,5 \text{ h}$

$s = v \cdot t$

$v = 15 \text{ km/h}$

$s = 7,5 \text{ km}$

$s = 7,5 \text{ km}$

11.

$t = 2,5 \text{ h}$

$v = \frac{s}{t}$

$s = 25 \text{ km}$

$v = 10 \text{ km/h}$

$v = 10 \text{ km/h}$