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180 km

A  $\xrightarrow{180}$  B

|   | $v [\frac{km}{h}]$ | $t [h]$ | $s [km]$ |
|---|--------------------|---------|----------|
| A | 90                 | $t$     | $90t$    |
| B | 60                 | $t$     | $60t$    |

$$s_1 + s_2 = s$$

$$90t + 60t = 180$$

$$150t = 180 \quad | :150$$

$$t = 1,2 \text{ h} = 1 \text{ h } 12 \text{ min}$$

$$A: 90t = 90 \cdot 1,2 = 108 \text{ km}$$

$$B: 60t = 60 \cdot 1,2 = 72 \text{ km}$$

$$180 \text{ km}$$

Pokojí se na 1 h 12 min ve vzdálenosti 108 km od místa A.

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NN

DV za  $1\frac{1}{2} = 1,5 \text{ h}$

|    | $v [\frac{km}{h}]$ | $t [h]$             | $s [km]$      |
|----|--------------------|---------------------|---------------|
| NN | 20                 | $t$                 | $20t$         |
| DV | 60                 | $t - 1,5$<br>minuta | $60(t - 1,5)$ |

$$s_1 = s_2$$

$$20t = 60(t - 1,5)$$

$$20t = 60t - 90$$

$$20t - 60t = -90$$

$$-40t = -90 \quad | :(-40)$$

$$t = 2,25 \text{ h} = 2 \text{ h } 15 \text{ min}$$

$$DV: 2,25 - 1,5 = 0,75 \text{ h}$$

$$= 45 \text{ min}$$

$$NN: 20t = 20 \cdot 2,25 = 45 \text{ km}$$

$$DV: 60(t - 1,5) = 60(2,25 - 1,5) = 45 \text{ km}$$

Speciální vozidlo dokoní nadměrný náklad za 45 min.

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→ polovina cesty je 75 km

150 km

R  $\xrightarrow{150}$  B+D

|     | $v [\frac{km}{h}]$ | $t [h]$ | $s [km]$ |
|-----|--------------------|---------|----------|
| R   | 90                 | $t$     | 75       |
| B+D | 60                 | $t$     | 75       |

$$R: 90t = 75 \quad | :90$$

$$t = \frac{75}{90} = \frac{5}{6} \text{ h} = 50 \text{ min}$$

$$B+D: 60t = 75 \quad | :60$$

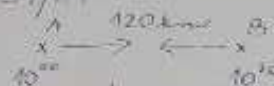
$$t = 1,25 \text{ h} = 1 \text{ h } 15 \text{ min}$$

$$= 75 \text{ min}$$

$$75 - 50 = 25 \text{ min}$$

Babicka a dědeček musí vyjet o 25 min dříve ve 13

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|   | $v [\frac{\text{km}}{\text{h}}]$ | $t [\text{h}]$    | $s [\text{km}]$       |
|---|----------------------------------|-------------------|-----------------------|
| A | 90                               | $t$               | $90t$                 |
| B | 60                               | $t + \frac{1}{3}$ | $60(t + \frac{1}{3})$ |

$$20 \text{ min} = \frac{20}{60} = \frac{1}{3} \text{ h}$$

$$\begin{aligned} s_1 + s_2 &= s \\ 90t + 60(t + \frac{1}{3}) &= 120 \\ 90t + 60t + 20 &= 120 \\ 150t &= 120 + 20 \\ 150t &= 140 \quad | :150 \\ t &= \frac{14}{15} \text{ h} = 56 \text{ min} \end{aligned}$$

$$B: 56 \text{ min} - 20 \text{ min} = 36 \text{ min}$$

rozdílení... A...  $90t = 90 \cdot \frac{14}{15} = 84 \text{ km}$  v místě A

B...  $60(t + \frac{1}{3}) = 60(\frac{14}{15} + \frac{1}{3}) = 60 \cdot \frac{18}{15} = 36 \text{ km}$  v místě B

Setkají se v 10:56 hod.

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|   | $v [\frac{\text{km}}{\text{h}}]$ | $t [\text{h}]$ | $s [\text{km}]$ |
|---|----------------------------------|----------------|-----------------|
| K | 60                               | $t$            | $60t$           |
| M | 90                               | $t$            | $90t$           |

$$s_1 + 100 = s_2$$

$$60t + 100 = 90t$$

$$100 = 30t \quad | :30$$

$$t = \frac{100}{30} = \frac{10}{3} \text{ h} = 3\frac{1}{3} \text{ h}$$

$$= 3 \text{ h } 20 \text{ min}$$

$14^{00} + 3^{20} =$  Správu si pošlou v 17h 20 min.

nebo také'  $s_2 - s_1 = 100$

$$90t - 60t = 100$$

$$30t = 100$$