

(1) $8 \cdot 25 = 200$
 $250 - 200 = \underline{50}$

(2) $42 - 8 \cdot 8 - 4 \cdot 16 = -86$
 $100 - 86 = \underline{14}$

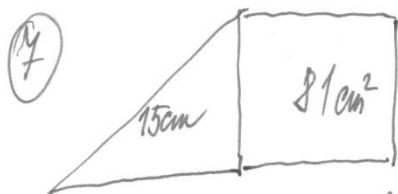
(3) $20 \text{ min} + 30 \text{ min} - 40 \text{ min} = \underline{10 \text{ min}}$

(4)
$$\begin{array}{r} 2046 \\ 404 \\ 5006 \\ 660 \\ 4804 \\ \hline 11920 \end{array}$$

(5) $= 20 + 20 + 40 - 20 = \underline{90}$

(6) $\frac{8x + 40}{24} = 10$
 $\frac{x + 5}{3} = 10$ metr
 $\underline{x = 25}$

postup "nerada"
 $10 \cdot 24 = 240$
 $240 - 40 = 200$
 $200 : 8 = \underline{25}$



Sčítaná je $81 \text{ cm}^2 \Rightarrow$ výška je 9 cm



(8) výpočet podle Pythagorovy věty

$\sqrt{15^2 - 9^2} = \sqrt{225 - 81} = \sqrt{144} = 12$

Práh čtverci je $12 \cdot 12 = \underline{144 \text{ cm}^2}$

(9) $(A + B)^2 = A^2 + 2AB + B^2$
 $(x + 2)^2 = x^2 + 4x + 4$

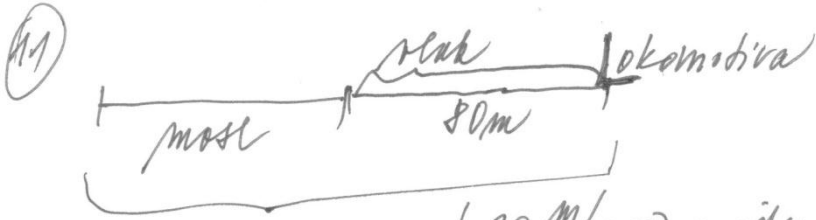
(10) $19 \text{ h } 12 \text{ min} - 13 \text{ h } 32 \text{ min} =$
 $= 5 \text{ h } 40 \text{ min}$

$5 \text{ h } 40 \text{ min} - 40 \text{ min (přesčítání)} =$
 $= 5 \text{ h}$

$5 \text{ h} = 300 \text{ min}$

$300 : 25 = \underline{12 \text{ minut}}$

(9) celkem $140 \text{ dešť.} = 100\%$
 $1\% \text{ je } 1/4$
 přič. řád $42 : 1/4 = \underline{30\%}$



na 7s rychlosti $20 \text{ m/s} \Rightarrow$ ujde $7 \cdot 20 = 140 \text{ m}$

$140 \text{ m} - \text{délka vlaku } 80 \text{ m} = \underline{60 \text{ m}}$

(12)

$2,4 \text{ h} \dots 0,4 \text{ hodiny} \uparrow$
 $x \text{ h} \dots 1 \text{ hodina} \uparrow$

$$x = \frac{1}{0,4} \cdot 2,4 = \frac{2,4}{0,4} = \underline{6}$$

(13)

1: 1500000
 1cm je $1500000 \text{ cm} = 15 \text{ km}$
 9cm je $9 \cdot 15 = 135 \text{ km}$
 čas \pm $135 : 60 = 2,25 \text{ h} =$
 $= \underline{2 \text{ h } 15 \text{ min}}$

(14)

$20 \text{ dl} \dots 1,5 \text{ h} \uparrow$
 $30 \text{ dl} \dots x \text{ h} \uparrow$

$$x = \frac{20}{30} \cdot 1,5 = \frac{2}{3} \cdot 1,5 = 1 \text{ h}$$

$1,5 \text{ h} - 1 = \underline{0,5 \text{ h} = 30 \text{ min}}$

(15)

$\sigma_{ABCD} = 2 \cdot (18 + 30) = 96 \text{ cm}$
 $\sigma_{KLMN} = 96 \text{ cm} \Rightarrow a = 96 : 4 = 24 \text{ cm}$
 $p = k = 24 \text{ cm}$
 $\sigma_{OPQR} = 2(36 + 24) = \underline{120 \text{ cm}}$

(16)

$5,505$	$5,05$	$5,455$
$- 0,05$	$0,005$	$5,055$
<hr style="width: 100%;"/>	<hr style="width: 100%;"/>	<hr style="width: 100%;"/>
$5,455$	$5,055$	$10,510$

(18)

$\frac{1}{6} \text{ z } 246 = 246 : 6 = 41$
 $\frac{1}{9} \text{ z } 171 = 171 : 9 = 19$
 $\frac{5}{12} \text{ z } 96 = (96 : 12 \cdot 5) = 40$
 $41 + 19 - 40 = \underline{20}$

(17)

$$2,5(4x - 2) - 1,5(4x - 2) = 0,5(4x + 8)$$

$$10x - 5 - 6x + 3 = 2x + 4$$

$$10x - 6x - 2x = 4 + 5 - 3$$

$$2x = 6 \quad | :2$$

$$x = \underline{3}$$

(20)

1: 450
 1cm je $450 \text{ cm} = 4,5 \text{ m}$
 $a = 6 \cdot 4,5 = 27 \text{ m}$ $s = 27 \cdot 18$
 $f = 4 \cdot 4,5 = 18 \text{ m}$
 trdní směr $\frac{27 \cdot 18^3}{81} = \underline{81 \text{ kg}}$

(19)

1. den $3\frac{3}{5} \text{ kg} = 3,6 \text{ kg}$
 2. den $3,6 + 1,4 = 5 \text{ kg}$
 $9 - (3,6 + 5) = \underline{0,4 \text{ kg}}$

(21) $= \sqrt{9 \cdot 9} - \sqrt{6 \cdot 6} - \sqrt{3 \cdot 3} = 9 - 6 - 3 = \underline{0}$

(22) najdiťte súčet $\frac{1}{9} + \frac{1}{4} + \frac{1}{3} + \frac{1}{12} = \frac{4+9+12+3}{36} = \frac{28}{36} = \frac{14}{18} = \frac{7}{9}$

$\frac{7}{9}$ prevedú na jincovú 54 $\frac{7}{9} = \frac{42}{54}$

(23) $\begin{array}{r} 24 \text{ km} \dots 10 \text{ dní} \\ x \qquad \qquad \qquad 16 \text{ dní} \end{array}$
 $x = \frac{10}{16} \cdot 24 = \frac{5}{4} \cdot 3 = \underline{15}$

(24) $\begin{array}{r} 842 \\ - 398 \\ \hline 444 \end{array}$ $444 : 2 = 222$
 $222 + 398 = \underline{620}$

(25) $= -3x - 6y - [9x - 5y - 4y - 8x] = 2x = -3x - 6y - 9x + 5y + 4y + 8x - 2x =$
 $= \underline{-6x + 3y}$

(26) $\begin{array}{l} \text{Dem: } 3=4 \\ \text{6cm: } 3=2 \\ \text{9cm: } 3=3 \end{array}$ $\begin{array}{l} \text{4ks} \\ \text{2ks} \\ \text{3ks} \end{array}$
 $3 \cdot 4 \cdot 2 = \underline{24}$

(27) $\begin{array}{r} 45 \text{ h} \dots 180 \text{ kg} \\ 125 \text{ h} \dots x \text{ kg} \end{array}$
 $x = \frac{125}{45} \cdot 180 = \frac{125}{45} \cdot 180 = \frac{25}{9} \cdot 18 = \underline{50 \text{ kg}}$

(28) $4 \left(\frac{7}{12} - \frac{4}{9} \right) = A \cdot \frac{21-16}{36 \cdot 9} = \underline{\frac{5}{9}}$

(29) $25 \text{ Kč} \Rightarrow 3 \text{ ks } 75 \text{ Kč}$
 $75 \text{ Kč} = 5 \text{ meliňok} \Rightarrow$
 $1 \text{ meliňok } 15 \text{ Kč}$
 $3 \text{ meliňok } 45 \text{ Kč} = 5 \text{ kuličiek}$
 $\Rightarrow 1 \text{ kulička } 9 \text{ Kč}$

(30) $\begin{array}{r} 963 \\ - 369 \\ \hline 594 \end{array}$ $\begin{array}{r} 639 \\ - 594 \\ \hline 45 \end{array}$

neto pomorí rovnice