TDÚ 16

1) $S = 300\,m = 0{,}3\,km$

$V_B = 300\,m/min = 0{,}3\,km/min = 18\,km/h$ $\qquad t_B = 1\,min$

$V_M = \frac{300}{\frac{2}{3}}\,m/min = 450\,m/min = 27\,km/h$ $\qquad t_M = \frac{2}{3}\,min$

M zjede kopec o 9 km/h rychleji

2) $\frac{5}{3x+9} - \frac{8}{5x-15} = \frac{4}{2x^2-18}$

$\frac{5}{3(x+3)} - \frac{8}{5(x-3)} = \frac{4}{2(x+3)(x-3)} \quad / \cdot 30(x+3)(x-3)$

$44, 177, 709, 2837, \underline{\underline{11349}}$

$\cdot 4 \quad +1$

$50(x-3) - 48(x+3) = 60$

$50x - 150 - 48x - 144 = 60$

$2x = 364$

$\underline{\underline{x = 177}}$

3) Boty ... 68 ks ⇒ 34 párů

Sáňky ... 25

Lyže ... $28 = 2 \cdot 14$

$25 + 14 = 39$

$39 - 34 = \underline{\underline{5}}$

$\underline{\underline{5\ \text{dětí}}}$

4) Mísa + cukroví ... 8890 g

Y X

Š.V. $x - \frac{4}{10}x = \frac{6}{10}x$

B.H. $\frac{1}{2} \cdot \frac{6}{10}x = \frac{3}{10}x$

$x + y = 8890$

$\frac{3}{10}x + y = 3290 \quad / \cdot (-1)$

$\frac{7}{10}x = 5600$

$x = 8000\,g \Rightarrow y = \underline{\underline{890\,g}}$

5) Štědrý d. ... x

Boží nad. ... $\frac{62{,}5}{100}x$

Štěpán ... $\frac{25}{100}x$

Celkem ... 15 ks

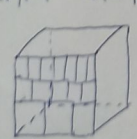
$x + \frac{62{,}5}{100}x + \frac{25}{100}x = 15 \quad / \cdot 100$

$100x + 62{,}5x + 25x = 1500$

$187{,}5x = 1500$

$\underline{\underline{x = 8}}$

6) krychle ... 10 cm, 6 cm, 4 cm



$nsn(10, 6, 4) = \underline{\underline{60}}$ rozměry krabice 60×60 cm

spodní ... $6 \times 6 = 36$

prostřední $10 \times 10 = 100$

horní $15 \times 15 = 225$

$\underline{\underline{361\ \text{krychliček}}}$

1 vrstva ... 6 pokládek

3 vrstvy ... $3 \cdot 6 = \underline{\underline{18\ \text{pokládek}}}$