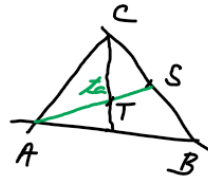


Rěšení úloh ze sbírky II.

24/3.8 $A[-5;6]$ $B[11;2]$ $C[3;4]$



a) PV přímky AC

$\vec{u} = \vec{AC} = (8; -10) = (4; -5)$

$x = -5 + 8t$
 $y = -6 + 10t$

$x = -5 + 4t$
 $y = -6 + 5t$

b) l_a

$S[4;3]$

$\vec{u} = \vec{AS} = (12; 9) = (4; 3)$

$x = -5 + 4t$
 $y = -6 + 3t$

c) $T = 2$

$T: x = -5 + \frac{2}{3} \cdot 12 \cdot t$

$y = -6 + \frac{2}{3} \cdot 9 \cdot t$

$x = -5 + 8t = -5 + 8 = 3$

$y = -6 + 6t = -6 + 6 = 0$

$\overline{AS}: t=1 \dots$ uložka

$T[3;0]$

PV přímky AB

$x = a_1 + t u_1$
 $y = a_2 + t u_2$
 $t \in \mathbb{R}$

PV úsečky AB

$x = a_1 + t u_1$
 $y = a_2 + t u_2$
 $t \in \langle 0; 1 \rangle$

PV polopřímky \overrightarrow{AB}

$t \in \langle 0; +\infty \rangle$

25/3.11 a) $p: x = -3 + 2t$ $q: x = 1 - 6t$
 $y = 2 - t$ $y = 3t$

$\vec{u} = (2; -1)$ $\vec{v} = (-6; 3)$

$\vec{u} = k \cdot \vec{v}$ $k_1 = \frac{-6}{2} = -3$ $k_2 = \frac{3}{-1} = -3$
 $k \parallel q$

$A[-3;2] \in p$

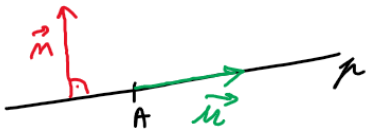
? $A \in q$? $-3 = 1 - 6t \Rightarrow t = \frac{4}{6} = \frac{2}{3}$
 $2 = 3t \Rightarrow t = \frac{2}{3}$
 $\Rightarrow A \in q \Rightarrow$
 $p = q$

25/3.15 a) PV přímky $p: A \in p, p \perp \vec{m}$

$A[5;4]$ $\vec{m} = (3; 2)$

$\vec{u} = (-2; 3)$

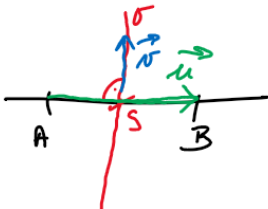
Kontrola:
 $\vec{u} \cdot \vec{m} = 0$



$x = 5 - 2t$
 $y = 4 + 3t$

25/3.16 PV osy úsečky AB

a) $A[3; -3]$ $B[-1; -2]$



$S_{AB}[1; -\frac{5}{2}]$

$\vec{u}_{AB} = (-4; 1)$

$\vec{u}_{AB} = \vec{v} = (1; 4)$

24/1 h, 2 h, 4 h
5 B, C
11 h
15 h, 16 h

$o:$
 $x = 1 + t$
 $y = -\frac{5}{2} + 4t$