Filip Holek 3.C

Dú: $V_{0.5} \rightarrow 51/1,2,3; 5214$

① a) $A[-7;1]$; $\vec{u}=(7;2)$

$p: X = A + t\vec{u}$

$p: x = -7 + 7t$

$y = 1 + 2t$

b) $A[0;2]$; $\vec{u}=(-3;0)$

$p: X = A + t\vec{u}$

$p: x = -3t$

$y = 2$

c) $A[-2;-5]$; $\vec{u}=(0;4)$

$p: X = A + t\cdot\vec{u}$

$p: x = -2$

$y = -5 + 4t$

d) $A[0;0]$; $\vec{u}=(2;0)$

$p: X = A + t\vec{u}$

$p: x = 2t$

$y = 0$

② $A[0;7]$ $\quad \vec{u} = \vec{AB} = B - A = (-2;5)$

$B[-2;2]$ $\quad p: X = M + t\vec{u}$ $\quad p: x = 3 + (-2)t$

$M[3;3]$ $\quad y = -3 + 5t$

③ a) $A[-3;7]$ $\quad A \in p?$

$-3 = 1 - t \Rightarrow -4 = t$

$7 = 3t \Rightarrow \frac{7}{3} = t$

$-4 \neq \frac{7}{3} \Rightarrow \underline{A \notin p}$

b) $B[0;3]$ $\quad B \in p?$

$0 = 1 - t \Rightarrow 1 = t$

$3 = 3t \Rightarrow 1 = t$

$1 = 1 \Rightarrow \underline{B \in p}$

c) $C[-5;18]$ $\quad C \in p?$

$-5 = 1 - t \Rightarrow 6 = t$

$18 = 3t \Rightarrow 6 = t$

$6 = 6 \Rightarrow \underline{C \in p}$

d) $D[-14;-1]$ $\quad D \in p?$

$-14 = 1 - t \Rightarrow 15 = t$

$-1 = 3t \Rightarrow -\frac{1}{3} = t$

$15 \neq -\frac{1}{3} \Rightarrow \underline{D \notin p}$

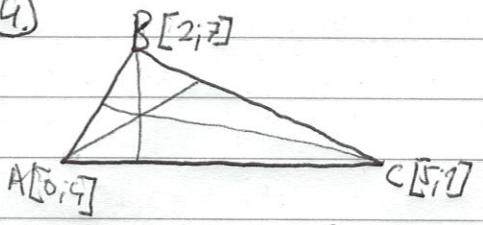
e) $E[2;3]$ $\quad E \in p?$

$2 = 1 - t \Rightarrow 1 = t$

$3 = 3t \Rightarrow 1 = t$

$1 = 1 \Rightarrow \underline{E \in p}$

(4.)



$\overrightarrow{AB} = (2;3)$ $\quad \overrightarrow{BC} = (3;-6)$ $\quad \overrightarrow{CA} = (-5;3)$

$x = 2t$ $\quad x = 2+3t$ $\quad x = 5-5t$

$y = 4+3t$ $\quad y = 7-6t$ $\quad y = 1+3t$

Težnice:

$\overrightarrow{AT_a} = (\frac{7}{2};0)$ $\quad \overrightarrow{AT_b} = (\frac{1}{2};-\frac{9}{2})$ $\quad \overrightarrow{AT_c} = (-4;\frac{9}{2})$

$x = \frac{7}{2}t$ $\quad x = 2+\frac{1}{2}t$ $\quad x = 5-4t$

$y = 4$ $\quad y = 7-\frac{9}{2}t$ $\quad y = 1+\frac{9}{2}t$