



7. \vec{u}, \vec{v} coliniari $\Rightarrow \vec{u} = k\vec{v} \Rightarrow \frac{x_1}{x_2} = \frac{y_1}{y_2}$ 3p
- $\frac{2m-1}{3} = \frac{1}{m} \Rightarrow 2m^2 - m - 3 = 0$ 3p
- $m_1 = \frac{3}{2}, m_2 = -1$ 4p
8. $OM \perp d \Rightarrow m_{OM} \cdot m = -1$ 2p
- $m_{OM} = \frac{y_M - y_O}{x_M - x_O} = -\frac{4}{3}$ 2p
- $m = \frac{3}{4}$ 2p
- $M \in d \Rightarrow d: y - y_M = m(x - x_M)$ 2p
- $d: 3x - 4y - 25 = 0$ 2p
9. $\vec{AB} \cdot \vec{AC} = |\vec{AB}| \cdot |\vec{AC}| \cdot \cos \hat{A}$ 2p
- $|\vec{AB}| = AB = 3, |\vec{AC}| = AC = 4$ 2p
- Conform teoremei cosinusului avem :
- $BC^2 = AB^2 + AC^2 - 2 \cdot AB \cdot AC \cdot \cos \hat{A}$ 2p
- $BC^2 = AB^2 + AC^2 - 2 \cdot \vec{AB} \cdot \vec{AC}$ 2p
- $\vec{AB} \cdot \vec{AC} = \frac{AB^2 + AC^2 - BC^2}{2} = -1$ 2p