(34) $r: mx - 2y + 5 = 0 \longrightarrow \vec{v}_r\,(2, m)$

$s: nx + 6y - 8 = 0 \longrightarrow \vec{v}_s\,(-6, n)$

$r \perp s \qquad A(1,4) \in r$

$m = ? \qquad n = ?$

- $A(1,4) \in r \iff m \cdot 1 - 2 \cdot 4 + 5 = 0 \iff$

$\iff m - 8 + 5 = 0 \iff m - 3 = 0 \iff \boxed{m = 3}$

- $r \perp s \iff \vec{v}_r \perp \vec{v}_s \iff \vec{v}_r \cdot \vec{v}_s = 0 \iff$

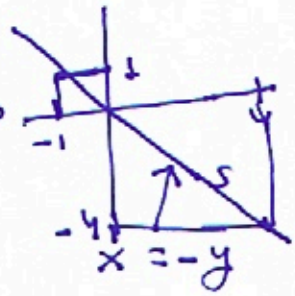
$\iff (2, 3) \cdot (-6, n) = 0 \iff -12 + 3n = 0 \iff$

$\iff 3n = 12 \iff \boxed{n = 4}$

(35)

$$r: \begin{cases} x = -1 + 3t \\ y = 2 + kt \end{cases} \qquad t \in \mathbb{R}. \longrightarrow \vec{v}_r\,(3, k)$$

$r \parallel$ s:bisectriu del 2n quadrant $\longrightarrow$



$S: y = -x$

$s: x + y = 0$

$\vec{v}_s\,(1, -1)$

$k = ?$

$r \parallel s \iff \vec{v}_r$ és proporcional a $\vec{v}_s \iff$

$\iff \frac{3}{1} = \frac{k}{-1} \iff \boxed{k = -3}$