$$\hat{r\,s} = 45^0 \Longleftrightarrow \cos(\vec{v}_r \widehat{\ } \vec{v}_s) = \frac{\sqrt{2}}{2} \Longleftrightarrow \frac{|\vec{v}_r \cdot \vec{v}_s|}{|\vec{v}_r||\vec{v}_s|} = \frac{1}{\sqrt{2}} \Longleftrightarrow$$

$$\Longleftrightarrow \frac{|-3B+4|}{\sqrt{9+16}\,\sqrt{1+B^2}} = \frac{1}{\sqrt{2}} \Longleftrightarrow \frac{|-3B+4|}{5} = \frac{\sqrt{1+B^2}}{\sqrt{2}} \Longrightarrow$$

$$\Longrightarrow \begin{cases} \dfrac{-3B+4}{5} = \dfrac{\sqrt{1+B^2}}{\sqrt{2}} \\[2ex] \dfrac{3B-4}{5} = \dfrac{\sqrt{1+B^2}}{\sqrt{2}} \end{cases} \Longrightarrow$$

$\uparrow$ elevem al quadrat.

$$\Longrightarrow \frac{9B^2+16-24B}{25} = \frac{1+B^2}{2}$$

$$18B^2+32-48B = 25+25B^2$$

$$7B^2+48B - 7 = 0$$

$$B = \frac{-48 \pm \sqrt{48^2+196}}{14} =$$

$$= \frac{-48 \pm \sqrt{2500}}{14} = \begin{cases} \dfrac{-48+50}{14} = \dfrac{2}{14} = \dfrac{1}{7} \\[2ex] \dfrac{-48-50}{14} = \dfrac{-98}{14} = -7 \end{cases}$$

$$\begin{array}{r} 49 \\ 4 \\ \hline 196 \end{array} \qquad \begin{array}{r} 48 \\ 48 \\ \hline 384 \\ 192 \\ \hline 2304 \\ 196 \\ \hline 2500 \end{array}$$

Per tant, tenim 2 rectes

Si $B_1 = \frac{1}{7}$, $C_1 = \frac{2}{7} - 1 = \frac{-5}{7}$
$\uparrow$
$(*)$

$$S_1 : x + \frac{1}{7}y - \frac{5}{7} = 0 \Longleftrightarrow 7x + y - 5 = 0$$