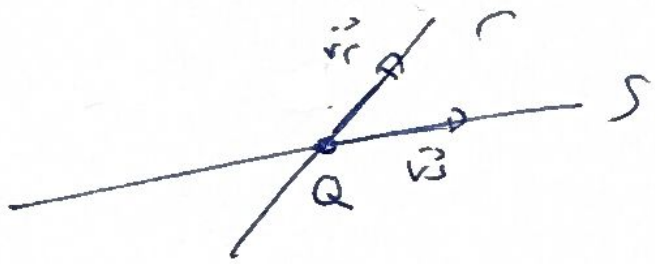
2

a) $r: \begin{cases} x = -1 + 3\lambda \\ y = 4 - 2\lambda \end{cases}$ $\quad s: 2x + y - 7 = 0$

$\vec{v}_r = (3, -2)$ $\quad \vec{n}_s = (2, 1)$ $\quad \vec{v}_s = (1, -2)$

Como $\frac{3}{1} \neq \frac{-2}{-2} \Rightarrow \vec{v}_r \nparallel \vec{v}_s \Rightarrow$ r y s son <u>secantes</u>



<u>CÁLCULO DEL PUNTO DE CORTE</u>

Sea $Q = (-1 + 3\lambda, 4 - 2\lambda)$ <u>punto genérico</u> de r.

$2(-1 + 3\lambda) + (4 - 2\lambda) - 7 = 0 \Rightarrow -2 + 6\lambda + 4 - 2\lambda - 7 = 0 \Rightarrow$

$4\lambda - 5 = 0 \Rightarrow \boxed{\lambda = \frac{5}{4}}$

Luego el punto de corte es

$Q = \left(-1 + 3 \cdot \frac{5}{4}, 4 - 2 \cdot \frac{5}{4}\right) = \left(-1 + \frac{15}{4}, 4 - \frac{5}{2}\right) = \left(\frac{11}{4}, \frac{3}{2}\right)$

2

b) $r: \frac{x+2}{3} = y-1$ $\qquad$ $s: 3x-9y+6=0$

Vamos a pasar r a general

$\frac{x+2}{3} = y-1 \Rightarrow x+2 = 3y-3 \Rightarrow x-3y+5=0$

$\begin{cases} r: x-3y+5=0 \\ s: 3x-9y+6=0 \end{cases}$ $\qquad$ $\frac{1}{3} = \frac{-3}{-9} \neq \frac{5}{6} \Rightarrow$ Rectas paralelas