16) $F(15|0) \Rightarrow \frac{p}{2}=15 \Rightarrow \boxed{p=30} \Rightarrow \boxed{par.: y^2=60x}$

$I(75|32)$

$g_{FI}: \overrightarrow{FI} = \begin{pmatrix}60\\32\end{pmatrix} \parallel \begin{pmatrix}15\\8\end{pmatrix} \perp \begin{pmatrix}8\\-15\end{pmatrix} \Rightarrow \boxed{g_{FI}: 8x-15y=120} \;/\cdot 15$

$g_{FI}: 120x-225y=1800$

$par \cap g_{FI}$: $60x=y^2 \Rightarrow 120x=2y^2$ (par!)

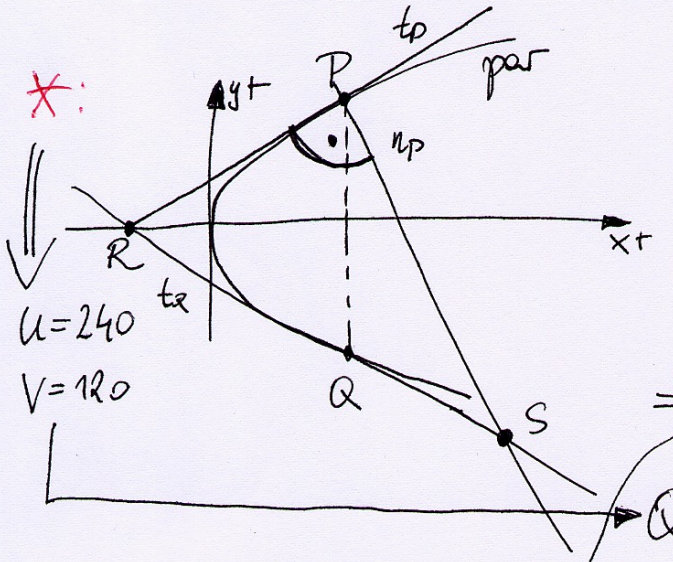
$2y^2-225y=1800$ *

$2y^2-225y-1800=0$

$\Rightarrow$ (GLF!) $\cap\; y_2 = \frac{225 \pm \sqrt{50625+14400}}{4} = \frac{225 \pm 255}{4} \Rightarrow y_1 = 120$ ($y_2 \notin \mathbb{Z}$)

$x_1 = 240$ $\Vert$ g_{FI} !

$\boxed{P(240|120)}$ *



*: $u=240$, $V=120$

$tp: 120y=30(x+240)$ Spaltform!

$tp: 4y=x+240$

$tp: -x+4y=240$

$\Rightarrow np: 4x+y=1080$

$tp \cap tq = \{R\}$, $\boxed{R(-240|0)}$

$Q(240|-120) \Rightarrow tq: -120y=30(x+240)$

$tq: -4y=x+240$

$tq: -x-4y=240$

$4x+y=1080$

$\{S\} = tq \cap np$: $-x-4y=240 \;/\cdot 4$ (+)

$-15y=2040 \Rightarrow y=-136 \Rightarrow x=304 \Rightarrow S(304|-136)$

$A = \frac{1}{2} \cdot \overline{PR} \cdot \overline{PS}$, $\overline{PR} = |\overrightarrow{PR}| = \left|\begin{pmatrix}-480\\-120\end{pmatrix}\right| = 120 \cdot \left|\begin{pmatrix}+4\\+1\end{pmatrix}\right| = 120 \cdot \sqrt{17}$, $\overline{PS} = |\overrightarrow{PS}| = \left|\begin{pmatrix}64\\-256\end{pmatrix}\right| = 64\left|\begin{pmatrix}1\\-4\end{pmatrix}\right| = 64\sqrt{17}$

$\Rightarrow A = \frac{1}{2_1} \cdot \frac{60}{120} \cdot \sqrt{17} \cdot 64 \cdot \sqrt{17} = 60 \cdot 64 \cdot \frac{\sqrt{17}\cdot\sqrt{17}}{17} = 3840 \cdot 17 = \boxed{65280}$

VGL.: $A = \underbrace{2uv}_{A(u,v|0)} \cdot \frac{2u+p}{2u-p}$; $A(240,120,30) = 2 \cdot 240 \cdot 120 \cdot \frac{2\cdot 240+30}{2\cdot 240-30} = 240 \cdot 240 \cdot \frac{510}{450} = \frac{51}{45} = \frac{17}{15}$ (÷ 3 / ÷ 3)

$= 240 \cdot 256 \cdot \frac{17}{15+1} = \boxed{65280}$