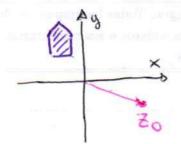
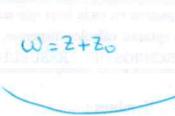
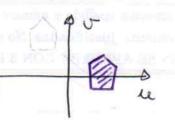
Transformaciones del plano

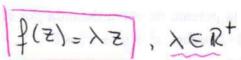


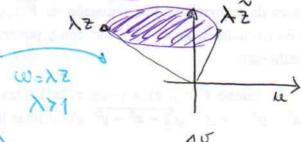


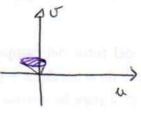


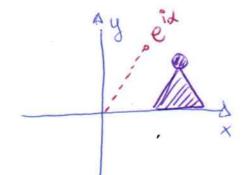


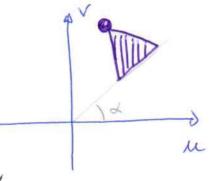












B+©: f(z)= a.z a ∈ C a = λeid Ly rodación + cambio de escala

Declarities

$$V = Z^2$$

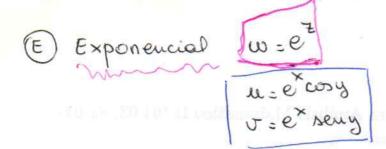
Red contenious?

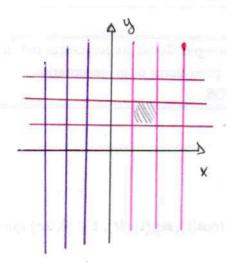
 $V = X^2 - y^2$
 $V = 2xy$

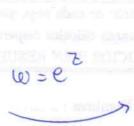
Rector $X = a$ ($a \in \mathbb{R}$) $\Rightarrow u = a^2 - y^2$
 $V = 2ay$
 $V = 2ay$

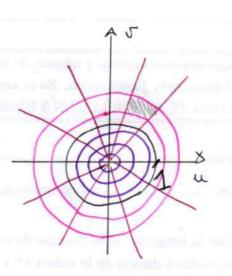
Rector $Y = b$ ($b \in \mathbb{R}$)

 $V = 2xb$
 $V = 2xb$

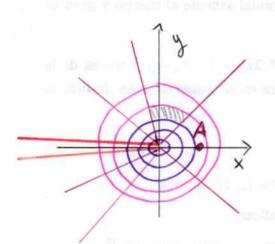


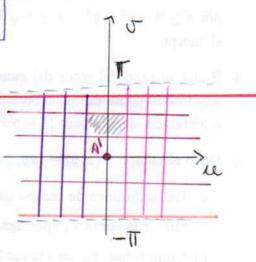






(F) logaritmo principal. Tw = log 2



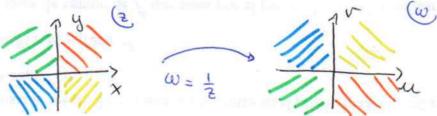


G Inversion
$$w = \frac{1}{2}$$
 $w = x$

$$M = \frac{x^2 + y^2}{x^2 + y^2}$$

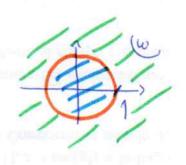
$$M = \frac{x^2 + y^2}{x^2 + y^2}$$

Semiplano derecho (en w)



$$|z| < 1 \implies |\omega| < 1$$

$$|z| < 1 \implies |\omega| > 1$$



Red carbesiana

$$u = \frac{\alpha}{\alpha^2 + y^2}$$

$$v = \frac{-y}{\alpha^2 + y^2}$$

$$u^{2} + v^{2} = \frac{a^{2}}{(a^{2} + y^{2})^{2}} + \frac{y^{2}}{(a^{2} + y^{2})^{2}} = \frac{1}{a^{2} + y^{2}} = \frac{u}{a}$$

$$\frac{\mu^{2} - \mu + 5^{2} = 0}{a}$$

$$\left\{ \left(u - \frac{1}{2\alpha} \right)^2 + \sigma^2 = \frac{1}{4\alpha^2} \right\}$$
 si $\alpha \neq 0$

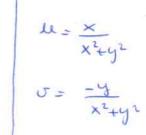
$$x^2+b^2$$

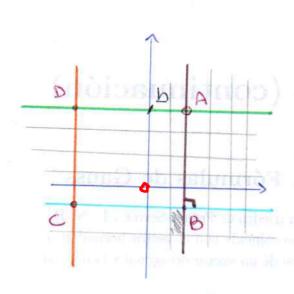
$$u^{2}+v^{2}=\frac{x^{2}}{(a^{2}+b^{2})^{2}}+\frac{b^{2}}{(x^{2}+b^{2})^{2}}=\frac{1}{x^{2}+b^{2}}=-\frac{5}{b}$$

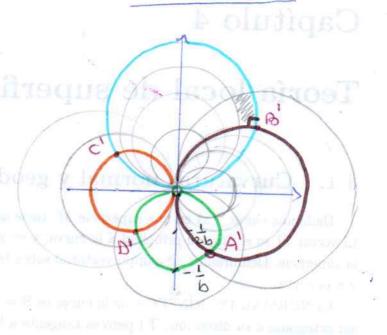
$$T = \frac{-b}{x^2 + b^2}$$

$$u^2 + v^2 + \frac{v}{b}$$

$$\mu^{2} + \sigma^{2} + \frac{\sigma}{b} = 0$$
 (=) $\left\{ \mu^{2} + \left(\sigma + \frac{1}{2b} \right)^{2} = \frac{1}{4b^{2}} \right\}$







En general: rector y circuferencia en rector y circuferencia

$$a(x^2+y^2)+bx+cy+d=0$$

Observe: a=0 (=> recta d=0 (=> posa por rigen a +0 (=> circumferencia

La b \$0 a c \$0 : centra fuera del origen

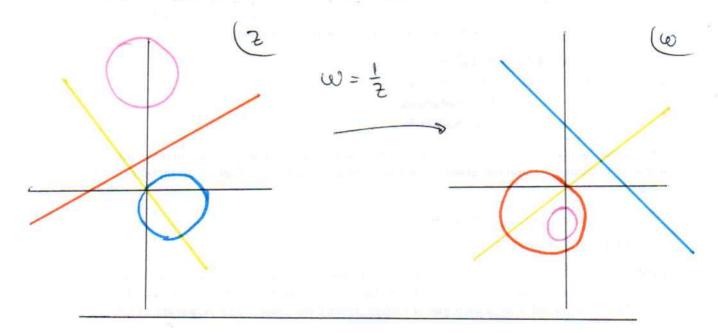
$$X = \frac{u^2 + \sigma^2}{\omega}$$
 (purque $\omega = \frac{1}{2} (=) = \frac{1}{\omega}$)

Limited (X, $u_i = 0$), that we will a separate European X as proposed as $u_i = 0$. The proposed is the separate energy and $u_i = 0$. The proposed is the separate energy and $u_i = 0$.

$$a\left(\frac{u^{2}}{(u^{2}+v^{2})^{2}} + \frac{v^{2}}{(u^{2}+v^{2})^{2}}\right) + b\frac{u}{u^{2}+v^{2}} + c\frac{(-v)}{u^{2}+v^{2}} + d = 0$$

$$a + bu - cu + d(u^2 + v^2) = 0$$

d=0	ol ‡0
recta pur el origen	recta fuera del viegen
recta per el vrigen	circuferercio provigen
circurferencis por origen	ci un ferencio fuero del origen
recto fuero del	del origen
	recta por el origen recta por el origen circurferencis por origen



H Transfermouin de Mibier - o rocional lineal a homográfica

$$W = \frac{az+b}{cz+d}$$
 ad-bc ± 0 a,b,c,d $\in C$

Sicto:
$$w = \frac{a}{c} + (\frac{bc-ad}{c}) \cdot \frac{1}{c}$$
 $W = \frac{a}{c} + (\frac{bc-ad}{c}) \cdot \frac{1}{c}$ $W = \frac{a}{c} + (\frac{bc-ad}{c}) \cdot \frac{1}{c}$ $W = \frac{a}{c} + (\frac{bc-ad}{c}) \cdot \frac{1}{c}$

Extendida a
$$C^*$$
 (plane compeje ampliade)
si c+0

 C^* (plane compeje ampliade)

 C^* (pl

$$S(C=0)$$

$$W = \begin{cases} \frac{a}{d} + \frac{b}{b} & \text{si } z \neq \infty \\ 0 & \text{si } z \neq \infty \end{cases}$$

$$S(C=0)$$

$$W = \begin{cases} \frac{a}{d} + \frac{b}{b} & \text{si } z \neq \infty \\ 0 & \text{si } z \neq \infty \end{cases}$$

Propiedodes

- à la inversa de una lumagra fió es una lumagrafia
- * la composition de homogro fios es uno homogro fior
- * uno homogra fia transforma rector y sir amperencia, en rector y sir amperencia

wednestrance and their materials in

Magnetic alan article (all)

Statement a supplied of the property of the supplied of the su

The office of the order of the

varies videna but maken or contribute in the first of the protection is the same of the sa

DI THE DIA 19 DENIGRAPHS IN COLOR IS

Cargo of wages and

The second the first of the Continue Premium of the second particle of the second of t

to observe any matter a compared with the first policy of a superficient for a function of a set of a set, and a function of the first policy of a set of a set of order for an analysis of the function of the function of the first policy of the fi

The first and the country at the flar more referring to deposit the manufacture and of securities in the first of the firs

e al MARIE (Bir MORN) ya go amerikan ye ay sagisig angambe sise a para piyas piyas piyas ayaa a

g you nelter after theman

I I finish I I tolked the or do an interness as a measure was