Almenn jafna hrings: $(x-h)^2+(y-k)^2=r^2$

Sporbaugur:

$\frac{(x-h)^2}{a^2}+\frac{(y-k)^2}{b^2}=1$ $\quad c=\sqrt{a^2-b^2}$ $\quad e=\frac{c}{a}$

Stórás láréttur
$F_1=(h-c,k)$ og $F_2=(h+c,k)$

Stórás lóðréttur
$F_1=(h,k-c)$ og $F_2=(h,k+c)$

Breiðbogi:

$\frac{(x-h)^2}{a^2}-\frac{(y-k)^2}{b^2}=1$

Tengiás láréttur
$V_1=(h-a,k)$ og $V_2=(h+a,k)$

Tengiás lóðréttur
$V_1=(h,k-a)$ og $V_2=(h,k+a)$

Almenn jafna línu:

$ax+by+c=0$ $\quad c=-ax_1-by_1$ $\quad \overline{n}=\begin{pmatrix}a\\b\end{pmatrix}$

$\overline{n}\cdot\overline{P_0P}=\begin{pmatrix}a\\b\end{pmatrix}\cdot\begin{pmatrix}x-x_0\\y-y_0\end{pmatrix}=0$ $\quad d=\frac{|ax_1+by_1+c|}{\sqrt{a^2+b^2}}$

Lausn jöfnuhneppis:

$a_1x+b_1y=c_1$
$a_2x+b_2y=c_2$

$x=\frac{det(c,b)}{det(a,b)}=\frac{\begin{vmatrix}c_1 & b_1\\c_2 & b_2\end{vmatrix}}{\begin{vmatrix}a_1 & b_1\\a_2 & b_2\end{vmatrix}}=\frac{c_1\cdot b_2-c_2\cdot b_1}{a_1\cdot b_2-a_2\cdot b_1}$ $\quad y=\frac{det(a,c)}{det(a,b)}=\frac{\begin{vmatrix}a_1 & c_1\\a_2 & c_2\end{vmatrix}}{\begin{vmatrix}a_1 & b_1\\a_2 & b_2\end{vmatrix}}=\frac{a_1\cdot c_2-a_2\cdot c_1}{a_1\cdot b_2-a_2\cdot b_1}$