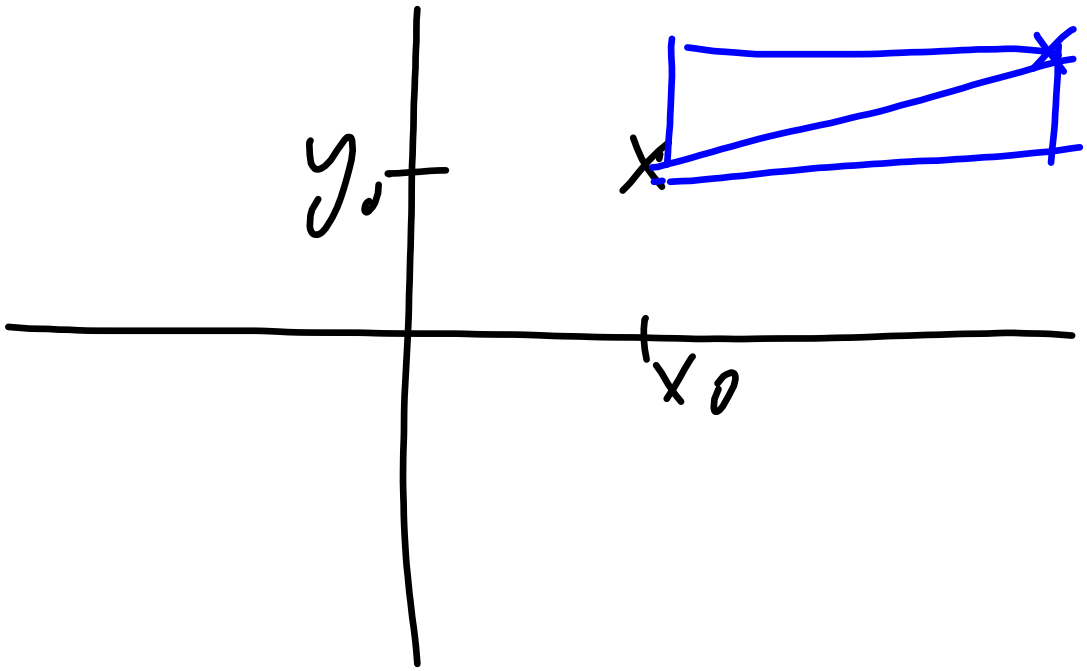
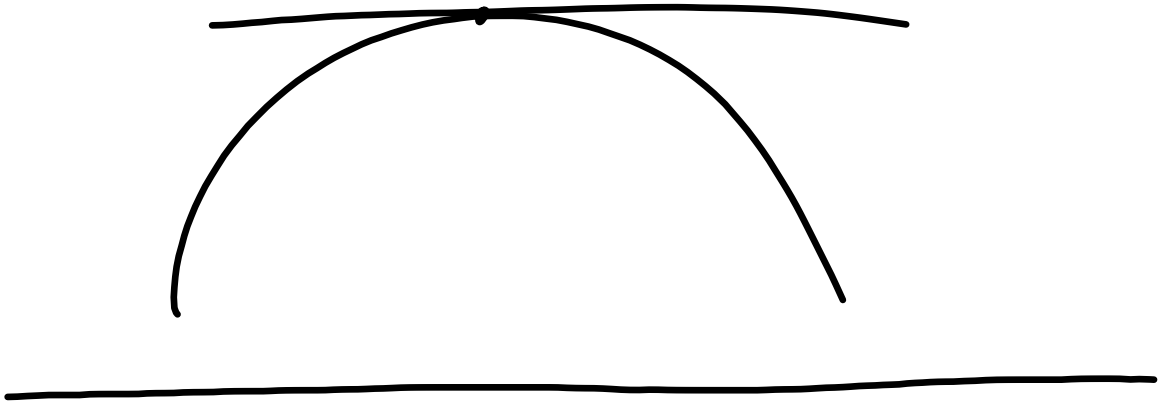
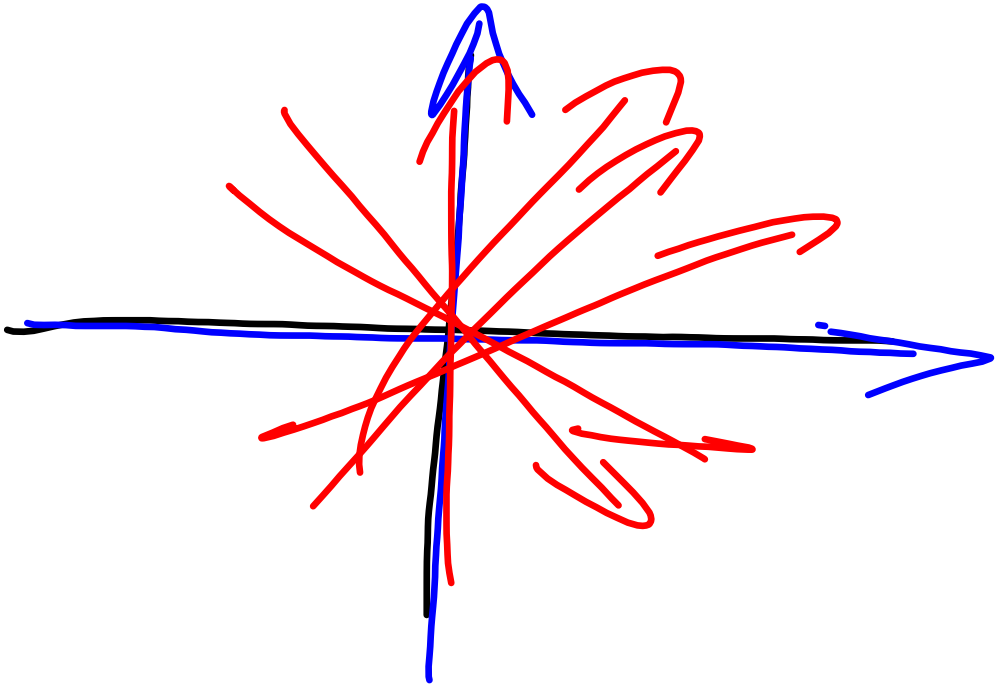
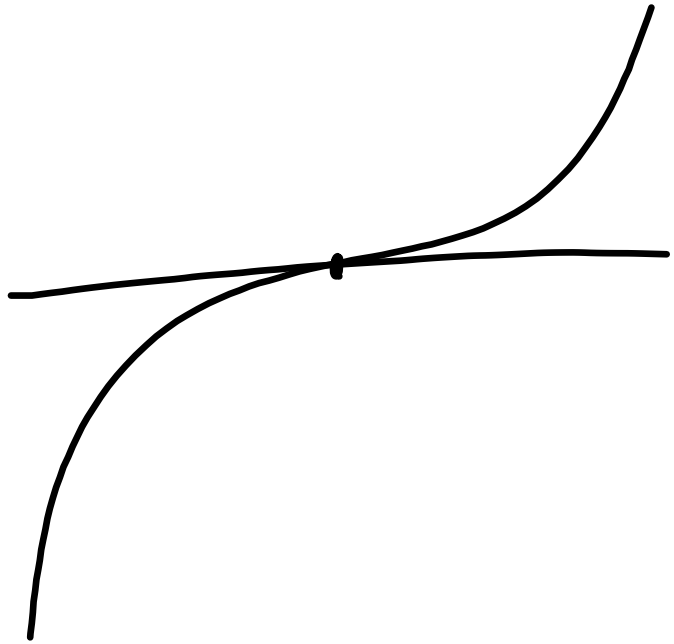

y
x
x0



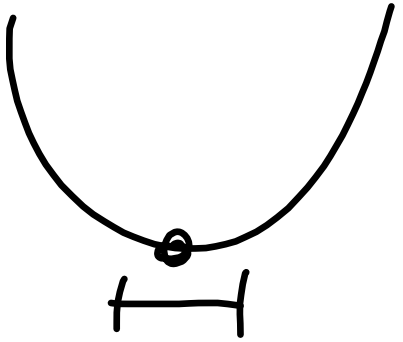


$$\begin{pmatrix} x \\ y \\ 2 \end{pmatrix} + t \cdot \begin{pmatrix} 0 \\ 0 \\ 1 \end{pmatrix}$$

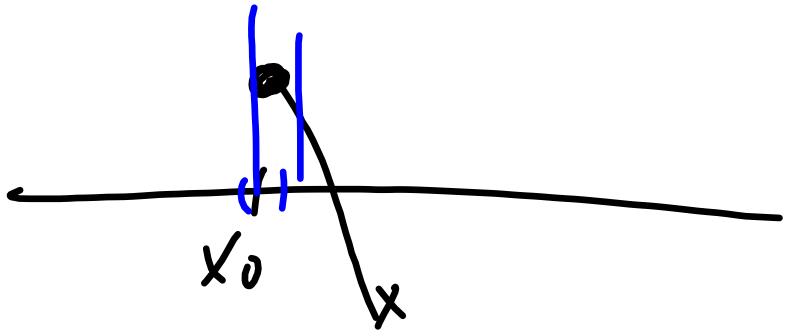


$$\begin{vmatrix} f_{xx} & f_{xy} \\ f_{yx} & f_{yy} \end{vmatrix}$$

$$g'(x_0) = 0 \quad \& \quad g''(x_0) > 0$$



$g''$



$$Ah^2 + 2Bhk + Ck^2$$

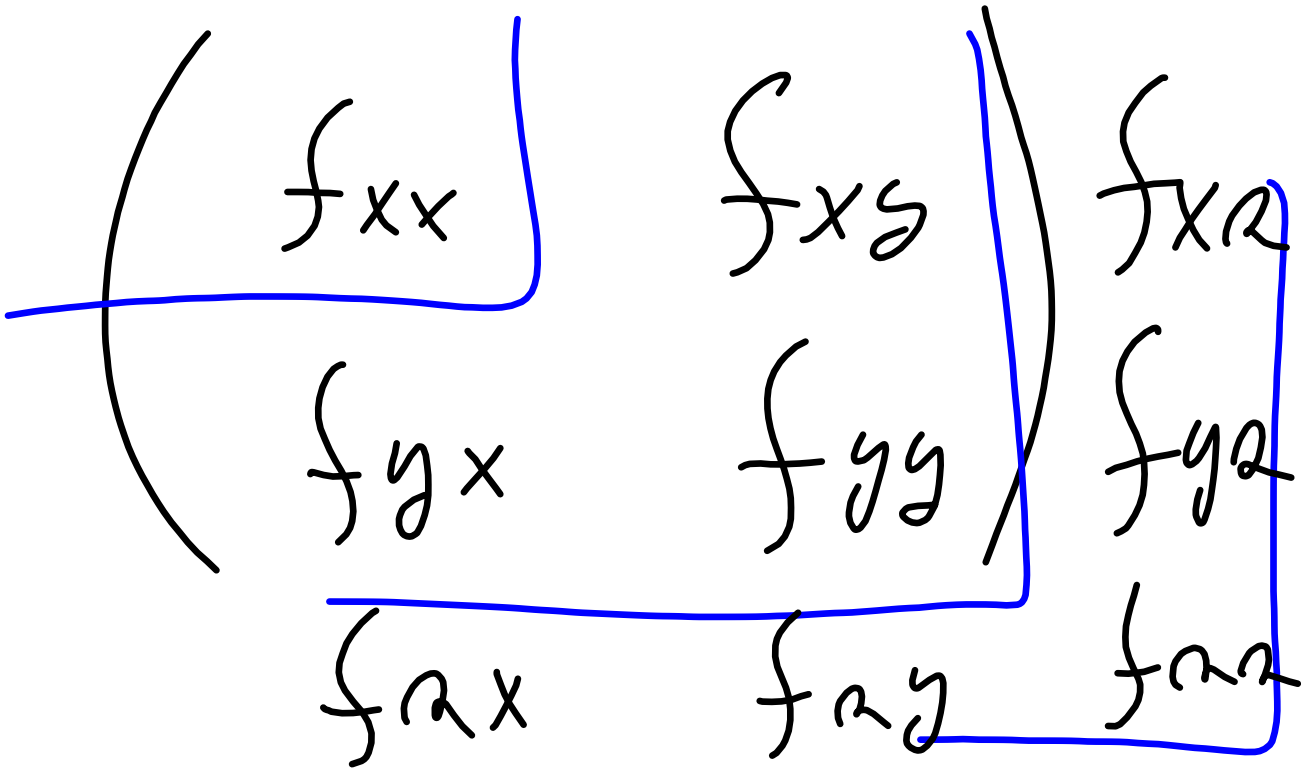
$$\| $$

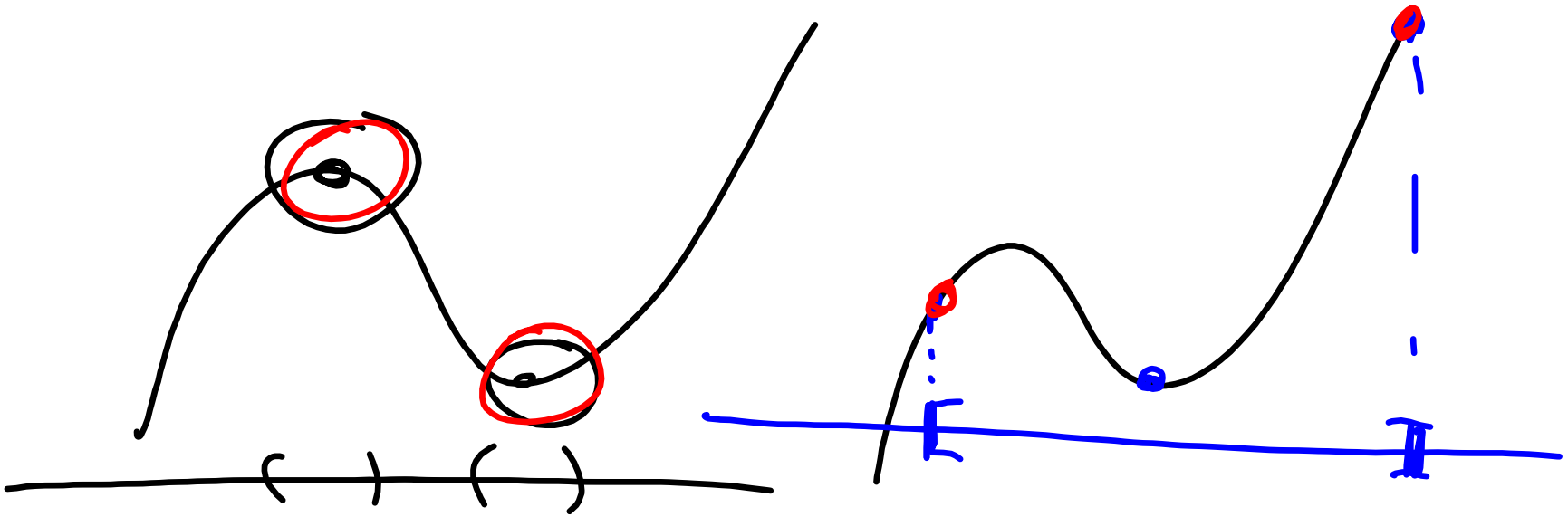
$$f_{xx}$$

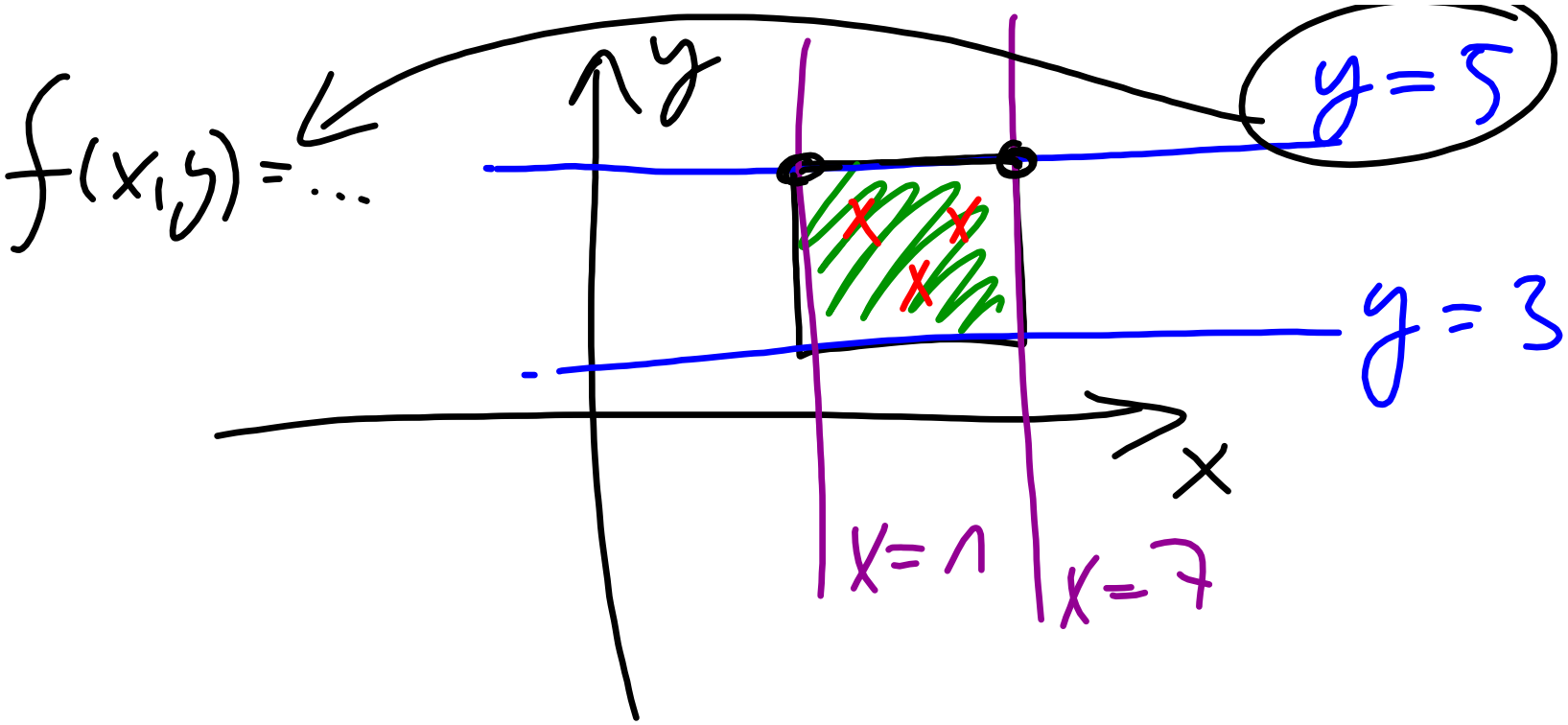
$$x^2 = y \,, \quad y^2 = x$$

$$(x^2)^2 = x$$

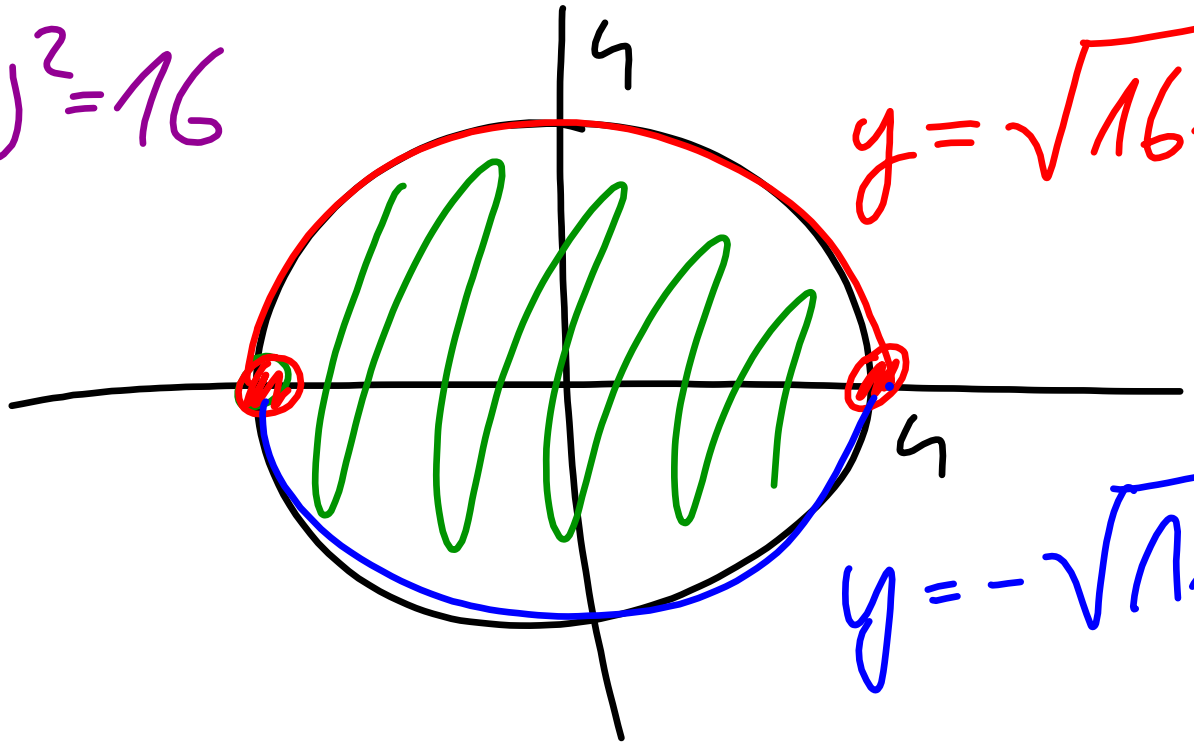
$$x^4 = x \,, \quad x^4 - x = 0$$


fxx
fxy
fxz
fyx
fyy
fyz
fzx
fzy
fzz



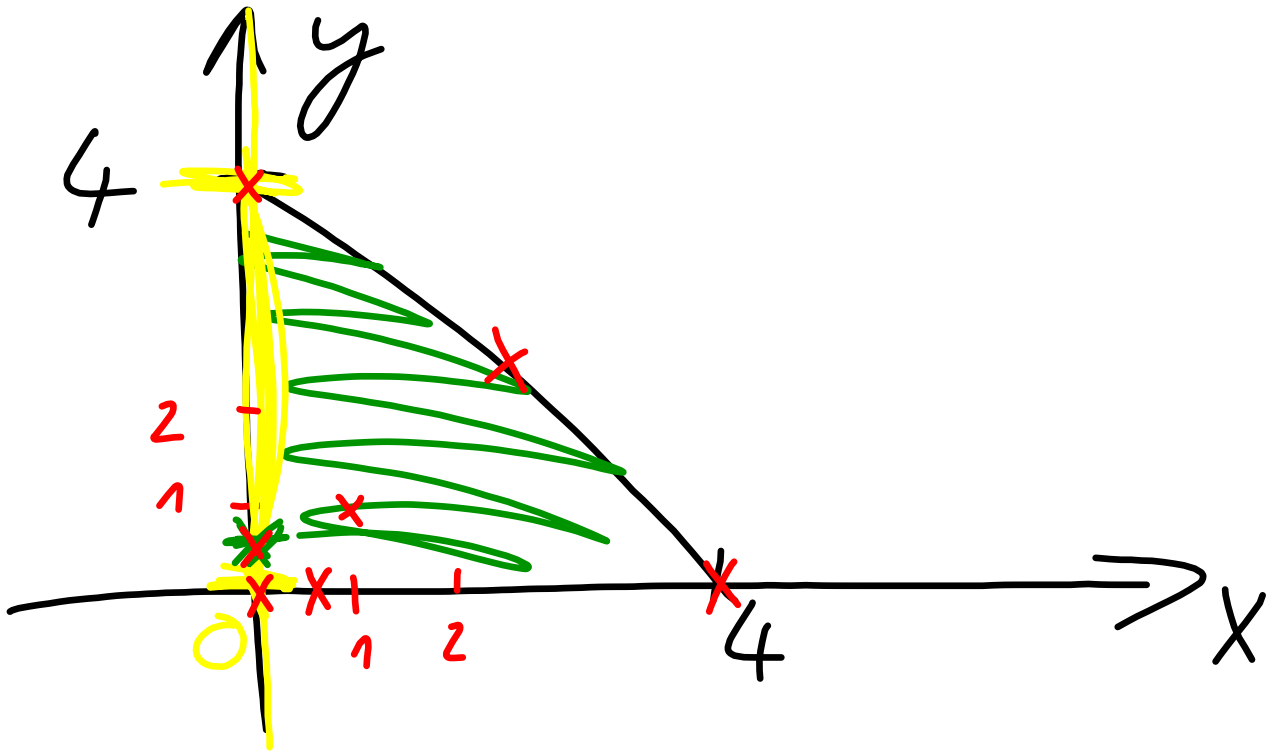

f(x,y)=...
y
y=5
y=3
x
x=1
x=7

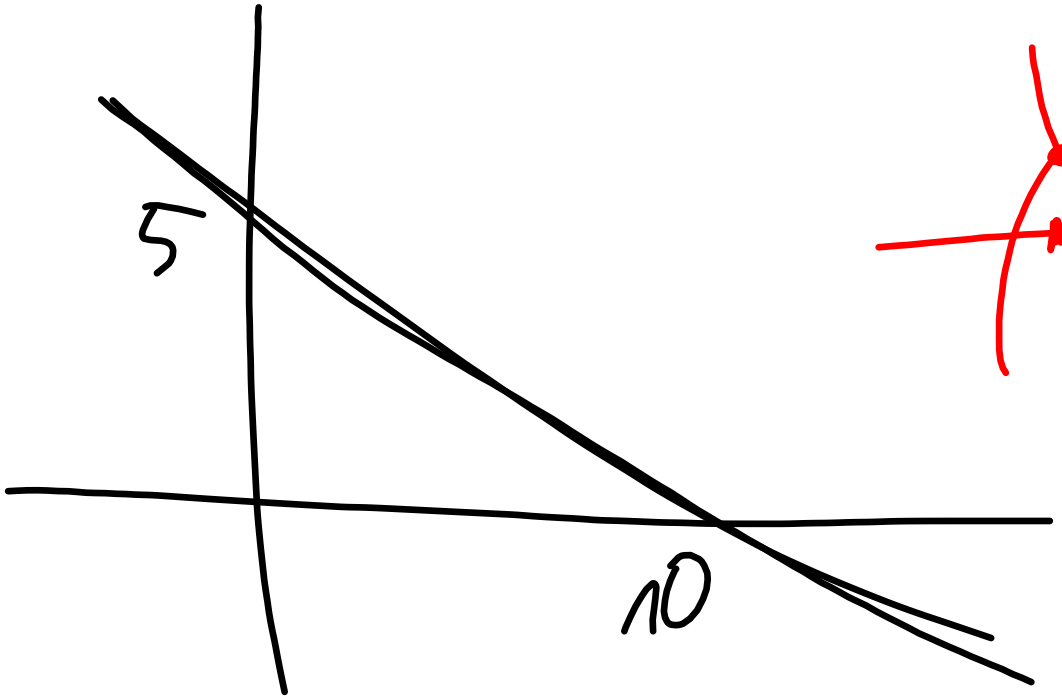
$x^2+y^2=16$

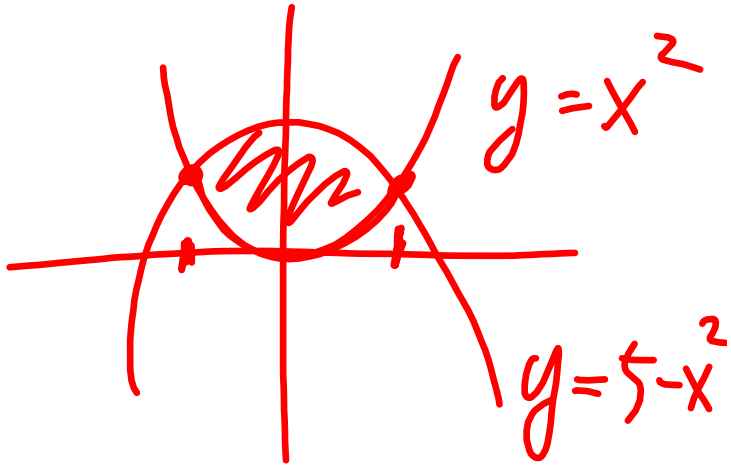


$y=\sqrt{16-x^2}$

$y=-\sqrt{16-x^2}$


y
4
2
1
1
2
4
x
0


5
10


y = x²
y = 5 - x²