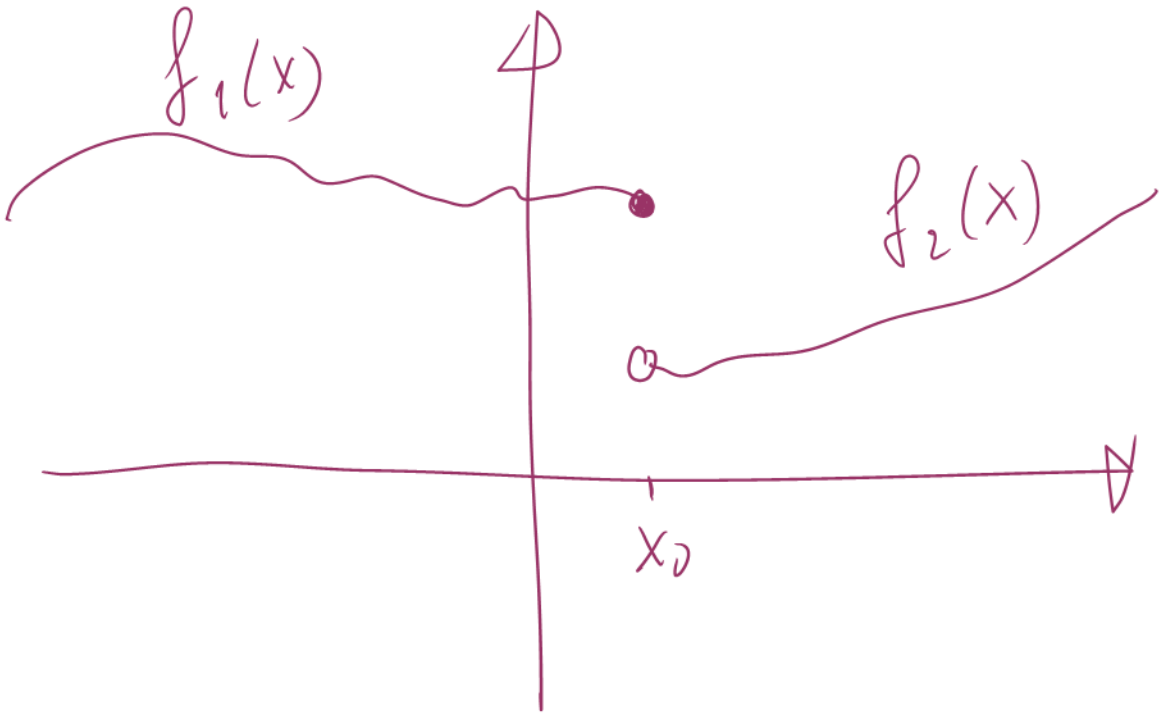
7.6 Stykkevis def. funksjoner

$$f(x) = \begin{cases} f_1(x) & \text{hvis } x \leq x_0 \\ f_2(x) & \text{hvis } x > x_0 \end{cases}$$

& Tuborgparentes



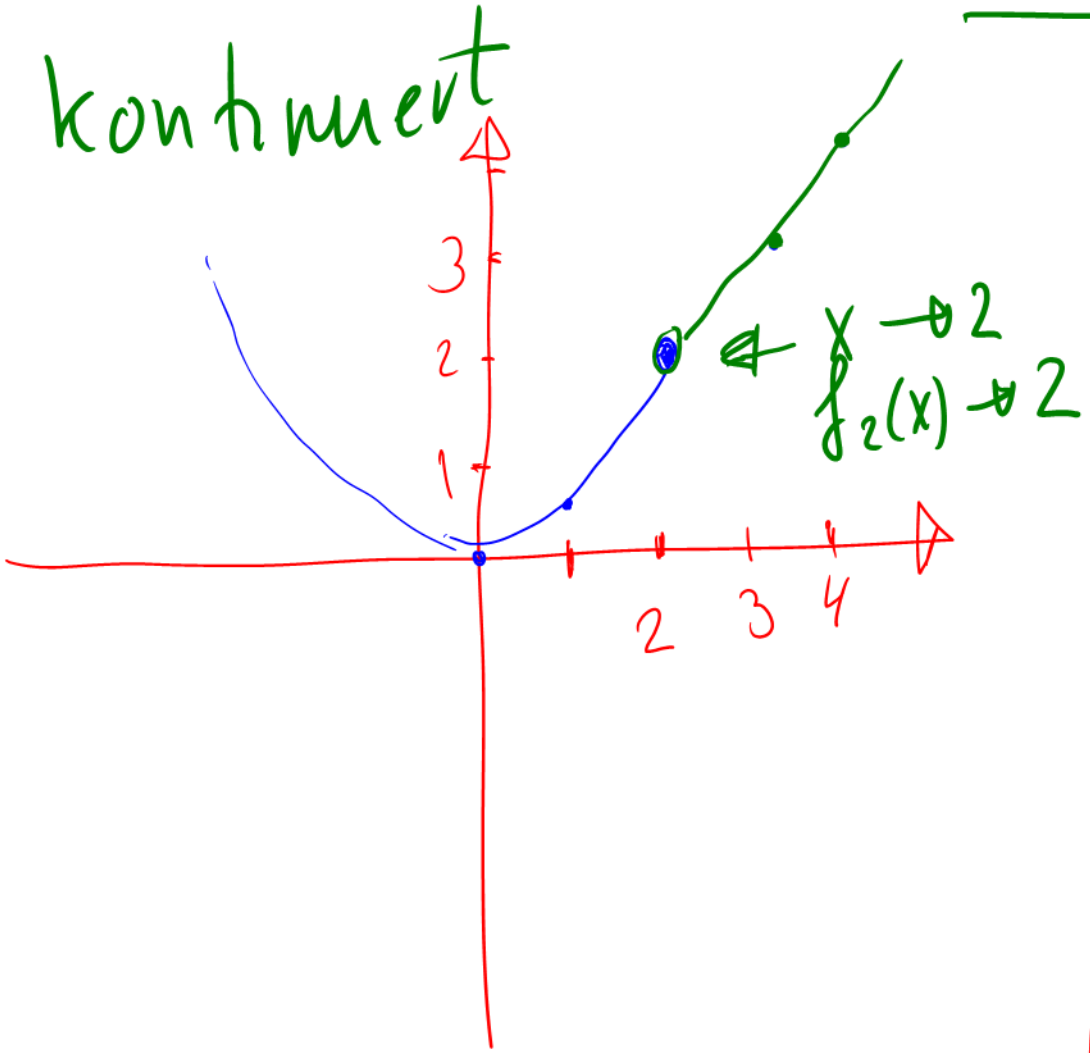
kontinuert

diskontinuert

7.6.1

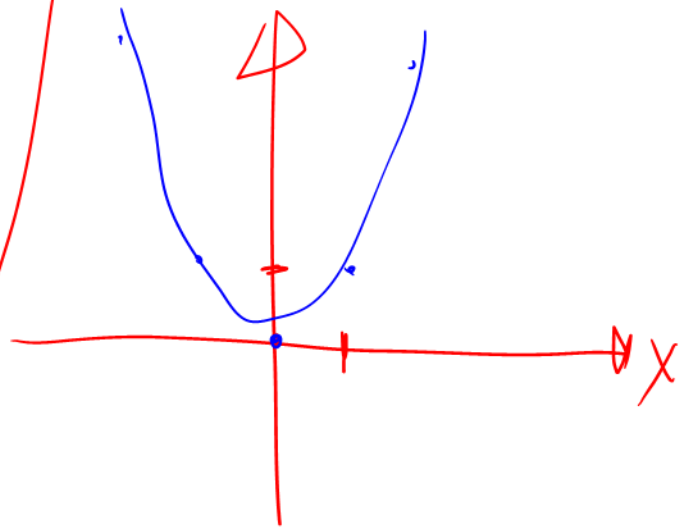
$$f(x) = \begin{cases} \frac{1}{2}x^2 & \text{für } x \leq 2 \\ f_2 = x & \text{für } x > 2 \end{cases}$$

kontinuert



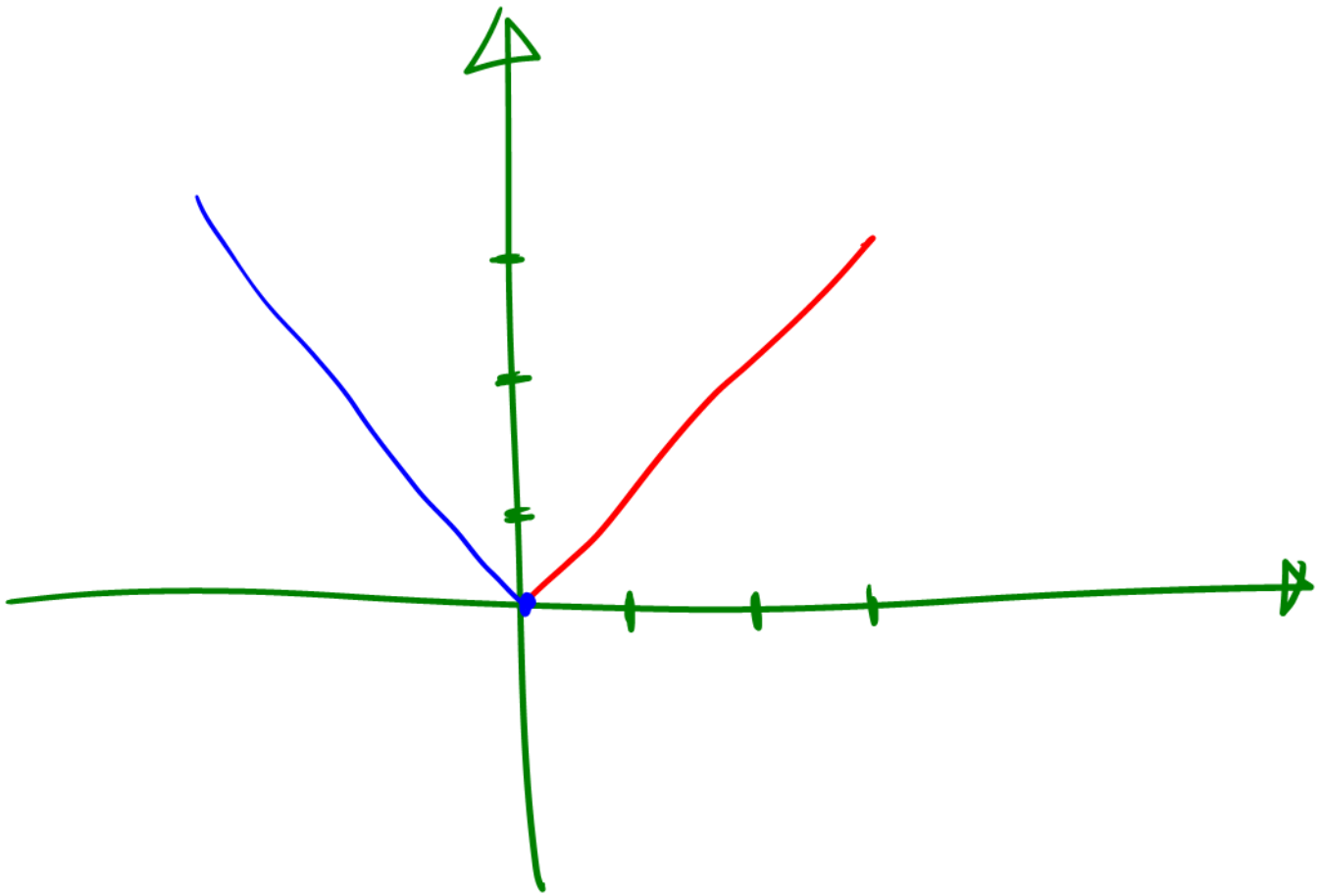
$g(x) = x^2$

x	0	1	2	-1	-2
x^2	0	1	4	1	4



7.6.3

$$f(x) = |x| = \begin{cases} -x & \text{for } x < 0 \\ x & \text{for } x \geq 0 \end{cases}$$

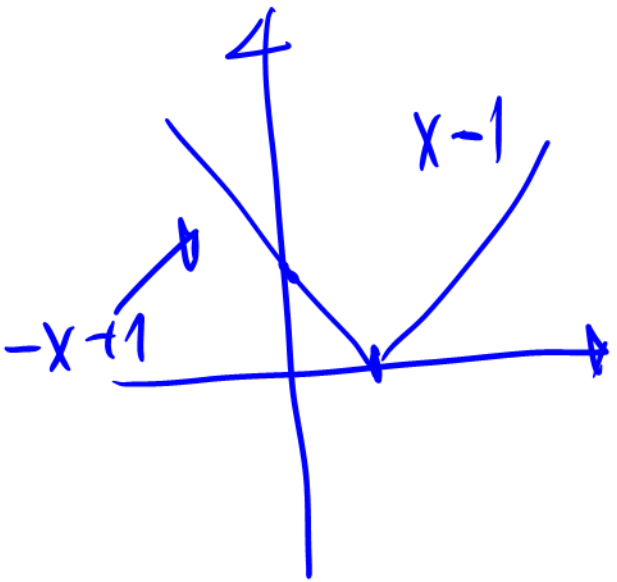


7.6.6

$f(x)=|x-1|$ $\quad x=1$

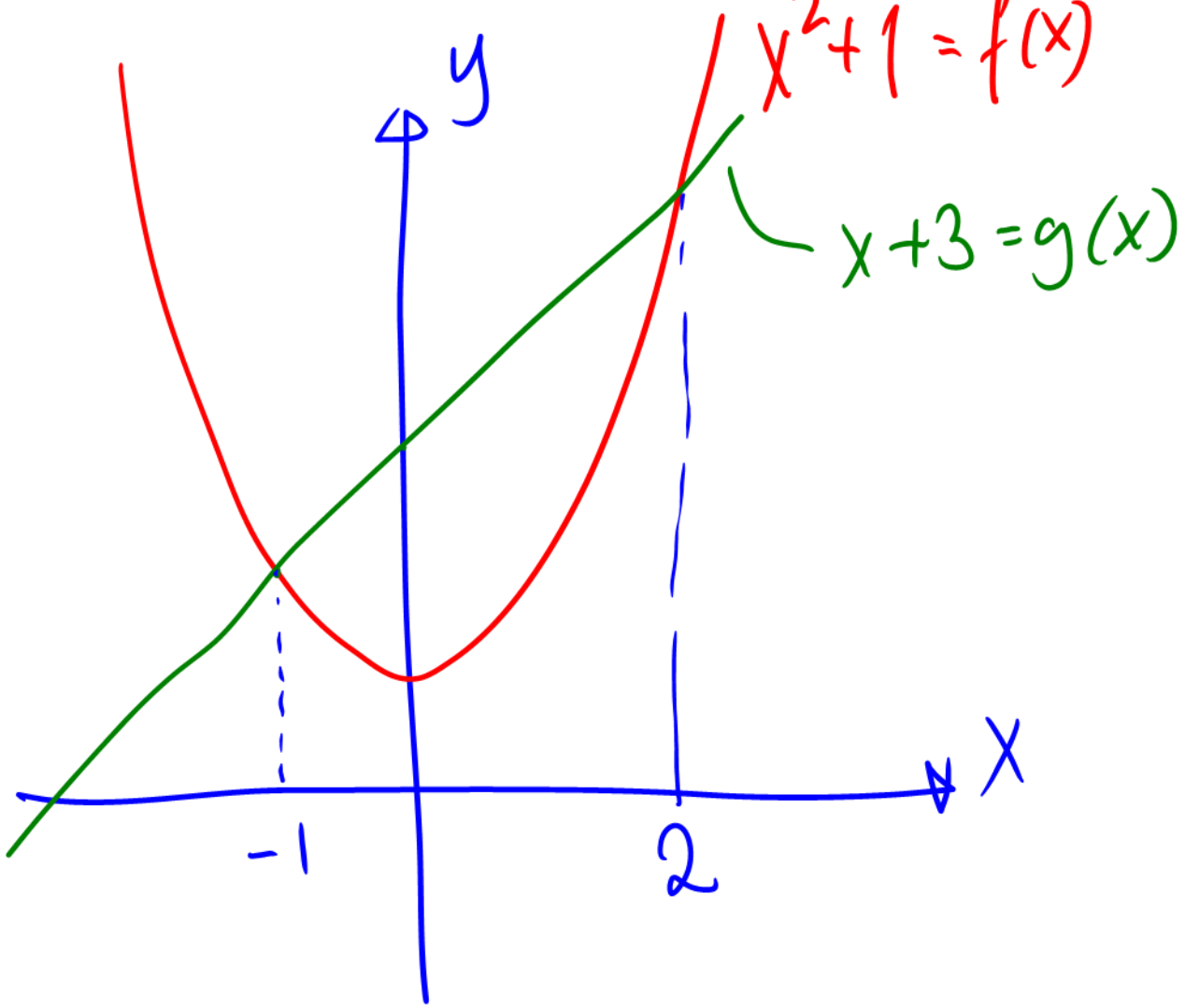
$f(-5)=|-5-1|=|-6|=6$

$f(5)=|5-1|=|4|=4$



$$f(x)=|x-1|=\begin{cases} x-1 & x\geq 1 \\ -(x-1) & x<1 \end{cases}$$

$$=\begin{cases} x-1 & x\geq 1 \\ -x+1 & x<1 \end{cases}$$



$L=[-1;2]$ $\quad -1\leq x\leq 2$

Hur er $g(x)\geq f(x)$?

$x+3\geq x^2+1$

① Lös $g(x)=f(x)$

$x+3=x^2+1 \Leftrightarrow$

$0=x^2+1-x-3$

$0=x^2-x-2$

$x=\frac{-B\pm\sqrt{D}}{2A}=$ $\quad D=9$

$=\frac{-(-1)\pm\sqrt{9}}{2}=\frac{1\pm 3}{2}=$

$=\begin{cases}1\\2\end{cases}$