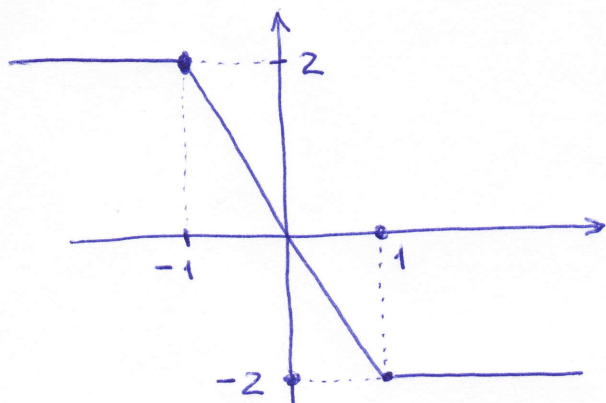


GRAPHS

(problem 2 in H/A 10)

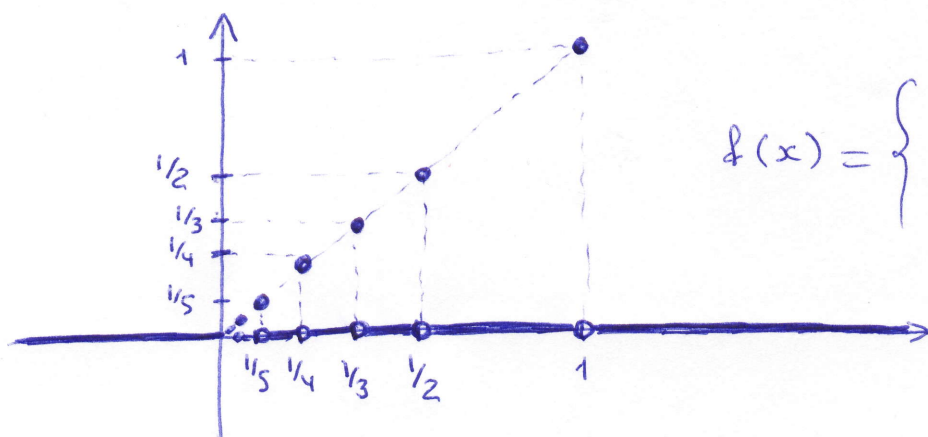
a.



$$f(x) = |x-1| - |x+1| =$$

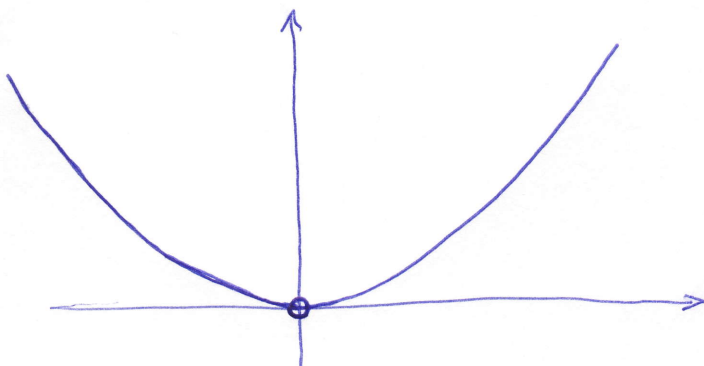
$$= \begin{cases} -2, & \text{if } x \geq 1 \\ -2x, & \text{if } -1 \leq x < 1 \\ 2, & \text{if } x < -1 \end{cases}$$

b.



$$f(x) = \begin{cases} x, & x = \frac{1}{n} \\ 0, & \text{otherwise} \end{cases}$$

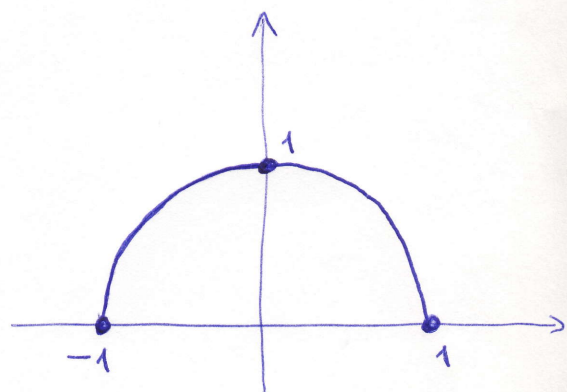
c.



$$f(x) = \frac{x^4}{x^2} = x^2 \text{ for } x \neq 0$$

f is not defined at 0

d.



$$f(x) = \sqrt{1-x^2}$$

f is not defined for $x > 1$ and $x < -1$.