

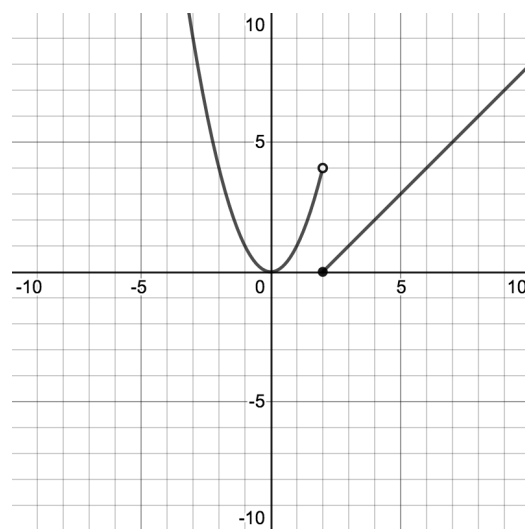
$$f(x) = \begin{cases} x, & x < 0 \\ 0, & x \geq 0 \end{cases}.$$

1

$$f(x) = \frac{x^2 - 4}{x + 2}, x \in \mathbb{R}.$$

2

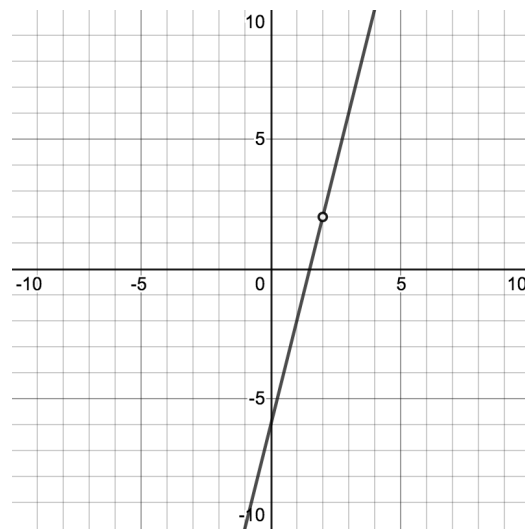
$$f(x) = \begin{cases} \text{undefined}, & x < 0 \\ x^2, & x \geq 0 \end{cases}.$$



3

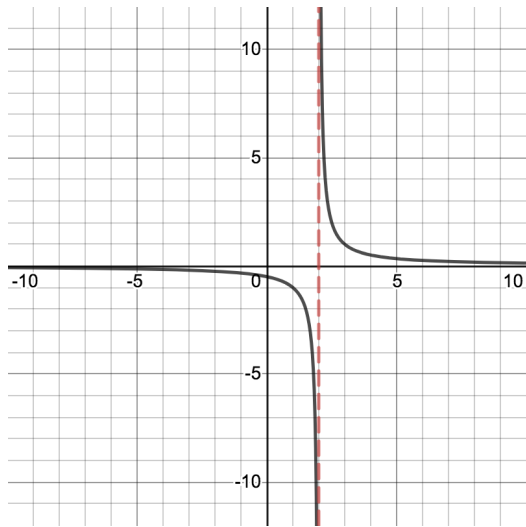
4

$$f(x) = \begin{cases} x + 2, & x < 0 \\ 0, & x = 0 \\ x + 2, & x > 0 \end{cases}.$$

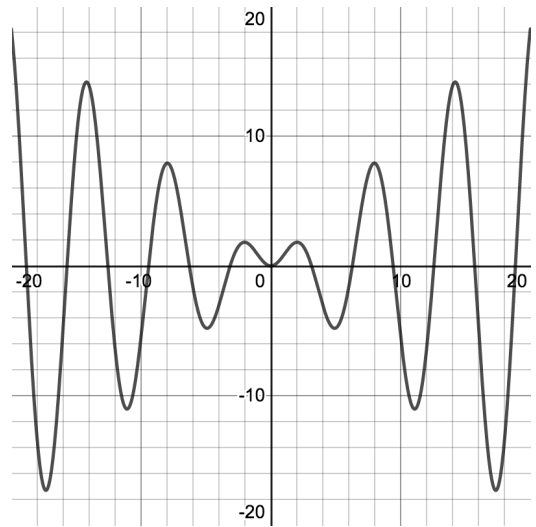


5

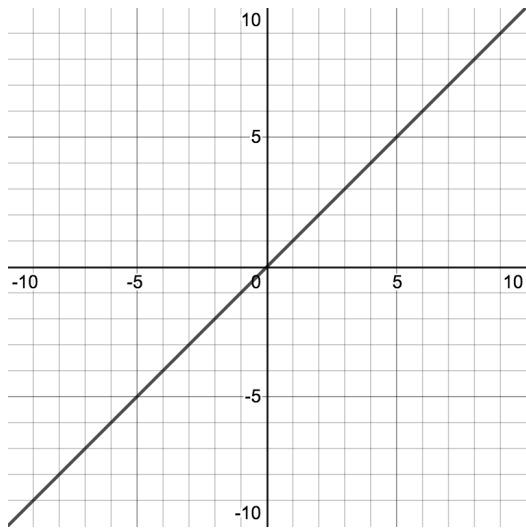
6



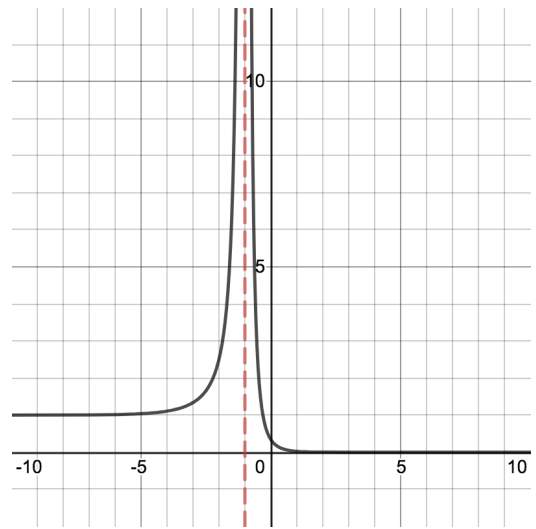
7



8



9



10

$$f(x) = \begin{cases} x^3 + 6, & x < 0 \\ x^3 - 6, & x \geq 0 \end{cases}$$

11

Heaviside's theta function:

$$f(x) = \begin{cases} 0, & x < 0 \\ 1, & x > 0 \end{cases}$$

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