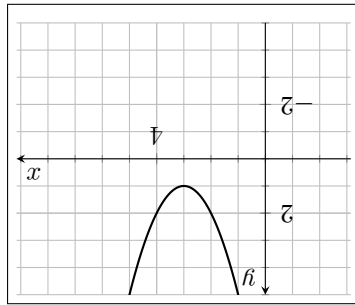


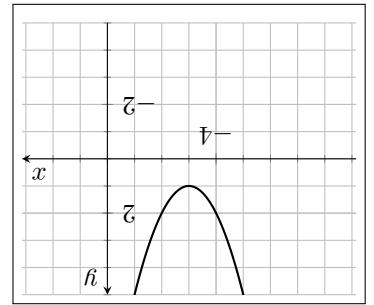
## Függvények ábrázolása (összetettebb példák)

1. Ábrázold az alábbi (másodfokú) függvényeket!

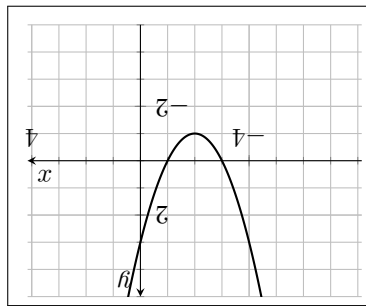
a)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto x^2 - 6x + 10$



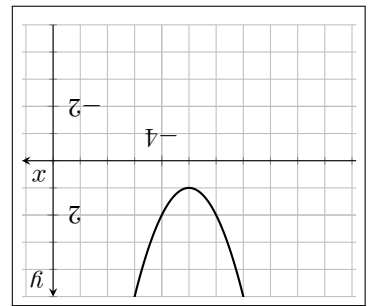
b)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto x^2 + 6x + 10$



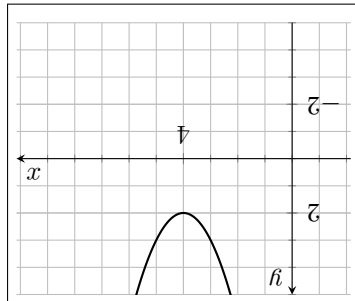
c)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto x^2 + 4x + 3$



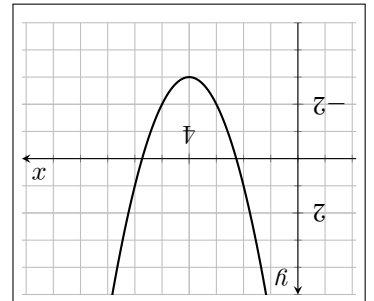
d)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto x^2 + 10x + 26$



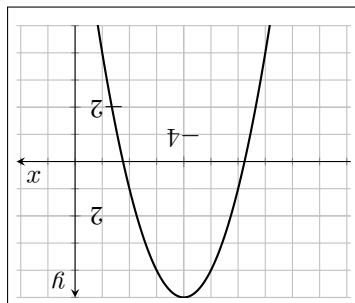
e)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto x^2 - 8x + 18$



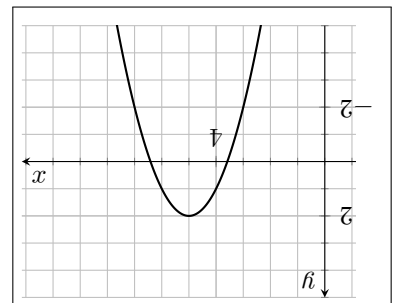
f)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto x^2 - 8x + 13$



g)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto -x^2 - 8x - 11$

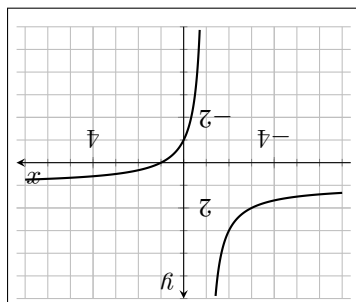


h)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto -x^2 + 10x - 23$

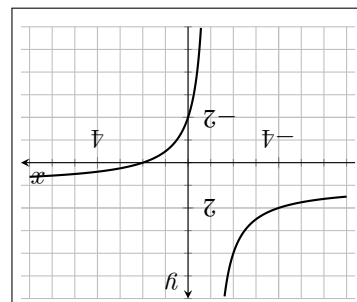


2. Ábrázold az alábbi függvényeket!

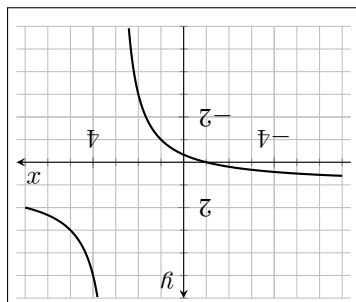
a)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto \frac{x-1}{x+1}$



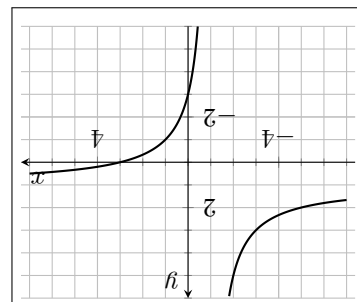
b)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto \frac{x-2}{x+1}$



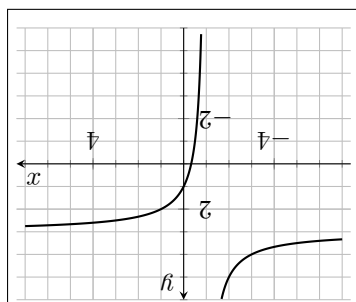
c)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto \frac{x+1}{x-3}$



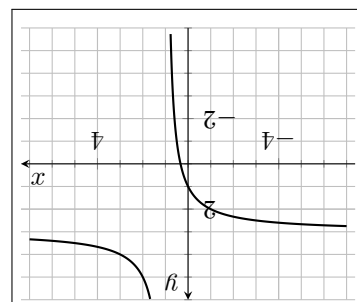
d)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto \frac{x-3}{x+1}$



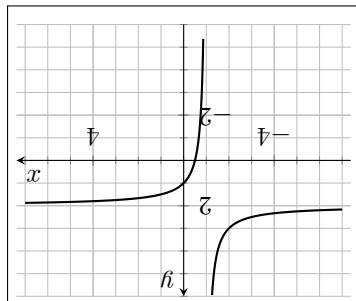
e)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto \frac{3x+1}{x+1}$



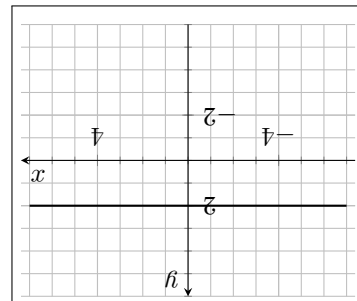
f)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto \frac{3x-1}{x-1}$



g)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto \frac{2x+1}{x+1}$

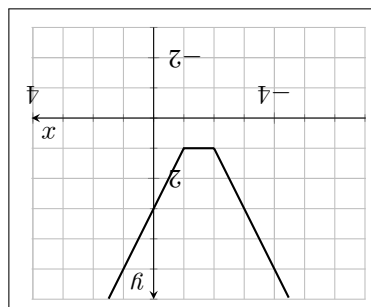


h)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto \frac{2x+2}{x+1}$

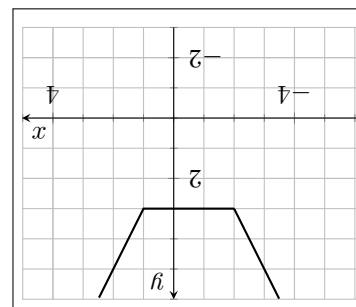


3. Ábrázold az alábbi függvényeket!

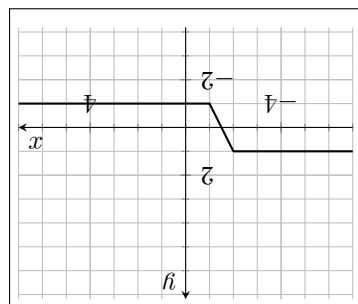
a)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto |x + 1| + |x + 2|$



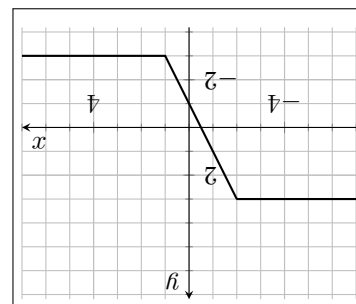
b)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto |x - 1| + |x + 2|$



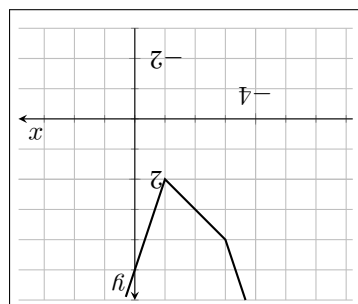
c)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto |x + 1| - |x + 2|$



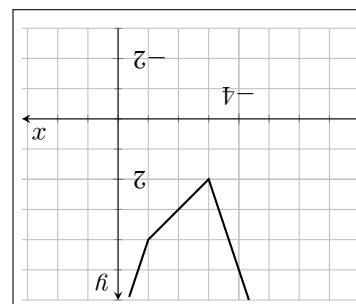
d)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto |x - 1| - |x + 2|$



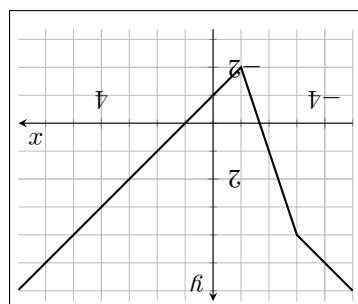
e)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto 2|x + 1| + |x + 3|$



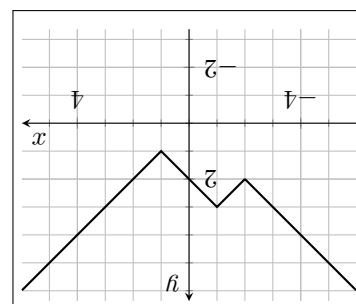
f)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto |x + 1| + 2|x + 3|$



g)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto 2|x + 1| - |x + 3|$

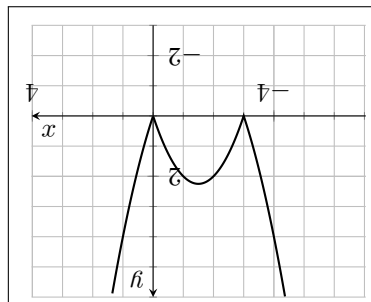


h)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto |x - 1| + |x + 2| - |x + 1|$

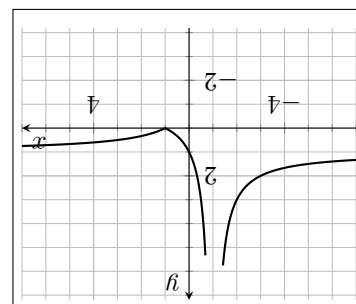


4. Ábrázolandó függvények listája alább...

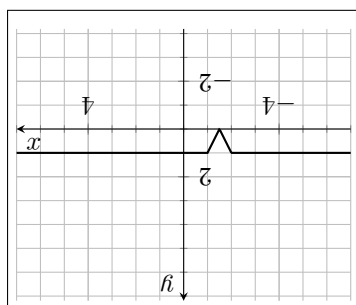
a)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto |x^2 + 3x|$



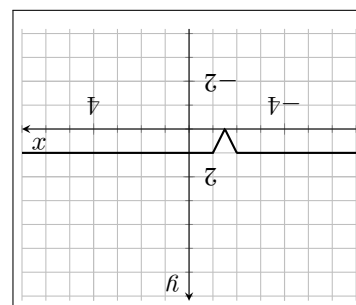
b)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto \left| \frac{x-1}{x+1} \right|$



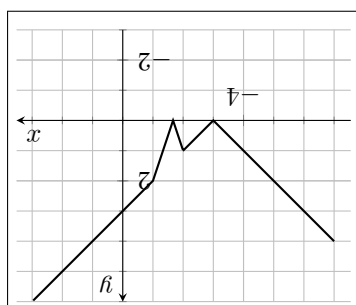
c)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto ||x+1| - |x+2||$



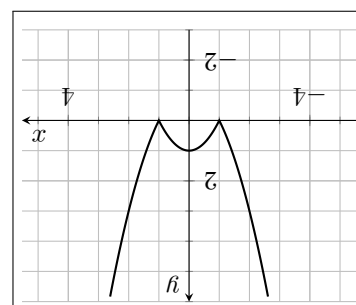
d)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto ||x+2| - |x+1||$



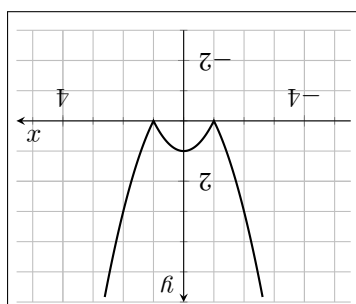
e)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto ||x+1| - 2|x+2||$



f)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto |x^2 - 1|$



g)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto |x-1| \cdot |x+1|$



h)  $f : \mathbb{R} \rightarrow \mathbb{R}, x \mapsto \sqrt{|x-2|}$

