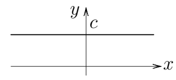
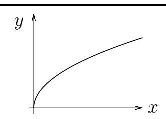
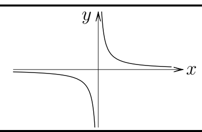
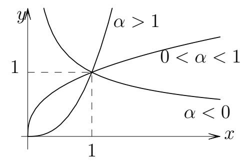
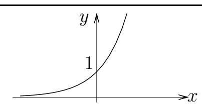
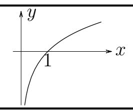
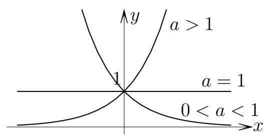
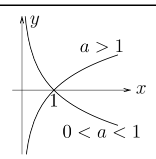
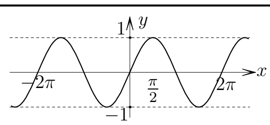
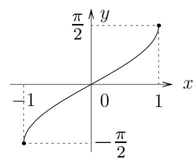
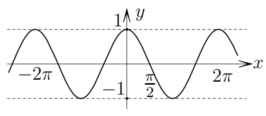
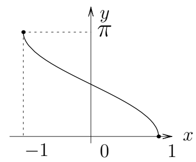
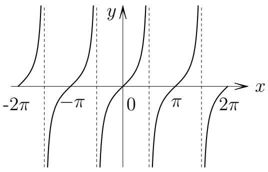
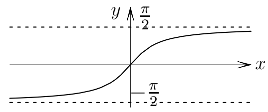
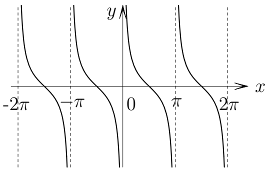
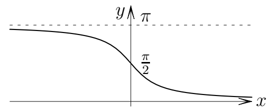
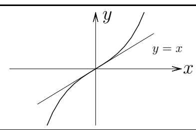
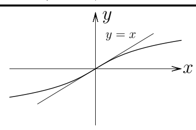
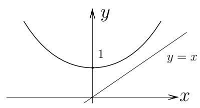
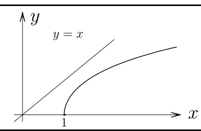
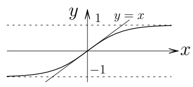
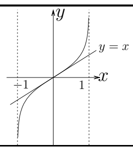
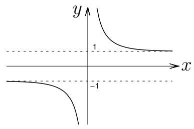
Elemi függvények deriváltja

$\mathcal{D}_f$ és $\mathcal{D}_{f'}$	$f(x)$	$f'(x)$	f képe
$\mathbb{R}$	c $(c \in \mathbb{R})$	0	
$\mathbb{R} \setminus \{0\}$	x^n $(n \in \mathbb{Z})$	nx^{n-1}	
$\mathcal{D}_f = [0, +\infty)$ $\mathcal{D}_{f'} = (0, +\infty)$	$\sqrt{x}$	$\dfrac{1}{2\sqrt{x}}$	
$\mathbb{R} \setminus \{0\}$	$\dfrac{1}{x}$	$-\dfrac{1}{x^2}$	
$(0, +\infty)$	x^α $(\alpha \in \mathbb{R})$	$\alpha x^{\alpha-1}$	
$\mathbb{R}$	e^x	e^x	
$(0, +\infty)$	$\ln x$	$\dfrac{1}{x}$	
$\mathbb{R}$	a^x $(a \in (0, +\infty))$	$a^x \ln a$	
$(0, +\infty)$	$\log_a x$ $(a \in \mathbb{R}^+ \setminus \{1\})$	$\dfrac{1}{x \ln a}$	
$\mathbb{R}$	$\sin x$	$\cos x$	
$\mathcal{D}_f = [-1, 1]$ $\mathcal{D}_{f'} = (-1, 1)$	$\arcsin x$	$\dfrac{1}{\sqrt{1-x^2}}$	
$\mathbb{R}$	$\cos x$	$-\sin x$	
$\mathcal{D}_f = [-1, 1]$ $\mathcal{D}_{f'} = (-1, 1)$	$\arccos x$	$-\dfrac{1}{\sqrt{1-x^2}}$	

$\mathbb{R} \setminus \{\frac{\pi}{2} + k\pi \mid k \in \mathbb{Z}\}$	$\operatorname{tg} x$	$\dfrac{1}{\cos^2 x}$	
$\mathbb{R}$	$\operatorname{arctg} x$	$\dfrac{1}{1+x^2}$	
$\mathbb{R} \setminus \{k\pi \mid k \in \mathbb{Z}\}$	$\operatorname{ctg} x$	$-\dfrac{1}{\sin^2 x}$	
$\mathbb{R}$	$\operatorname{arcctg} x$	$-\dfrac{1}{1+x^2}$	
$\mathbb{R}$	$\operatorname{sh} x$ $(:= \frac{e^x - e^{-x}}{2})$	$\operatorname{ch} x$	
$\mathbb{R}$	$\operatorname{arsh} x$ $(= \ln(x + \sqrt{x^2+1}))$	$\dfrac{1}{\sqrt{x^2+1}}$	
$\mathbb{R}$	$\operatorname{ch} x$ $(:= \frac{e^x + e^{-x}}{2})$	$\operatorname{sh} x$	
$\mathcal{D}_f = [1, +\infty)$ $\mathcal{D}_{f'} = (1, +\infty)$	$\operatorname{arch} x$ $(= \ln(x + \sqrt{x^2-1}))$	$\dfrac{1}{\sqrt{x^2-1}}$	
$\mathbb{R}$	$\operatorname{th} x$ $(:= \frac{\operatorname{sh} x}{\operatorname{ch} x})$	$\dfrac{1}{\operatorname{ch}^2 x}$	
$(-1, 1)$	$\operatorname{arth} x$ $(= \frac{1}{2} \ln \frac{1+x}{1-x})$	$\dfrac{1}{1-x^2}$	
$\mathbb{R} \setminus \{0\}$	$\operatorname{cth} x$ $(:= \frac{\operatorname{ch} x}{\operatorname{sh} x})$	$-\dfrac{1}{\operatorname{sh}^2 x}$	
$(-\infty, -1) \cup (1, +\infty)$	$\operatorname{arcth} x$ $(= \frac{1}{2} \ln \frac{x+1}{x-1})$	$\dfrac{1}{1-x^2}$