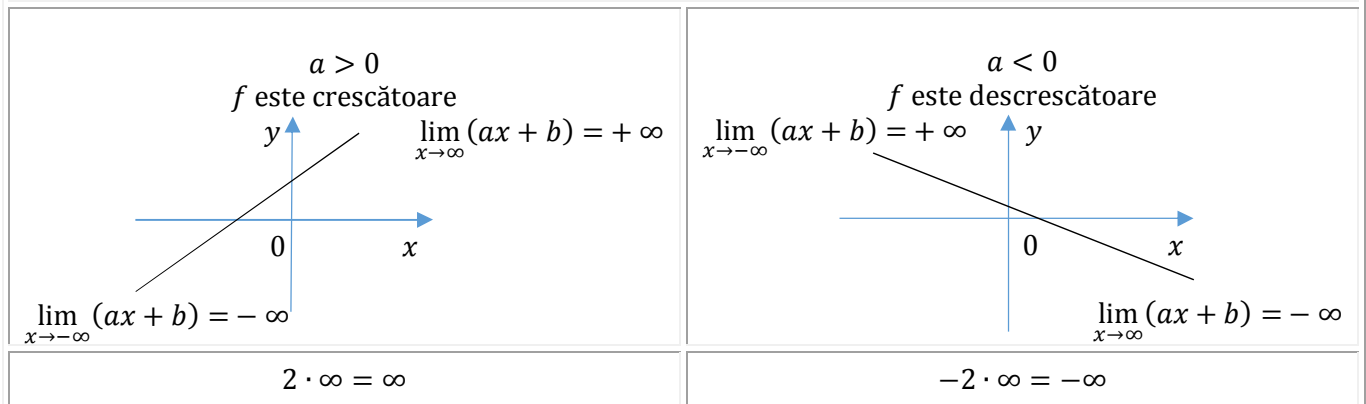
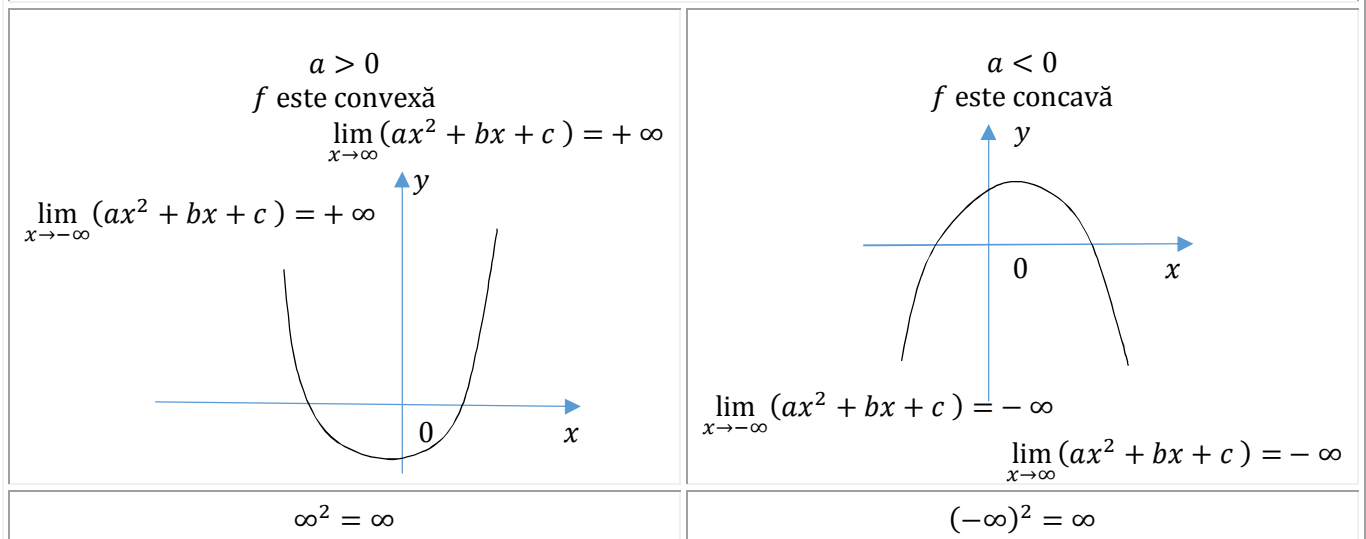


Lectura grafică și determinarea limitelor de funcții – 1 –

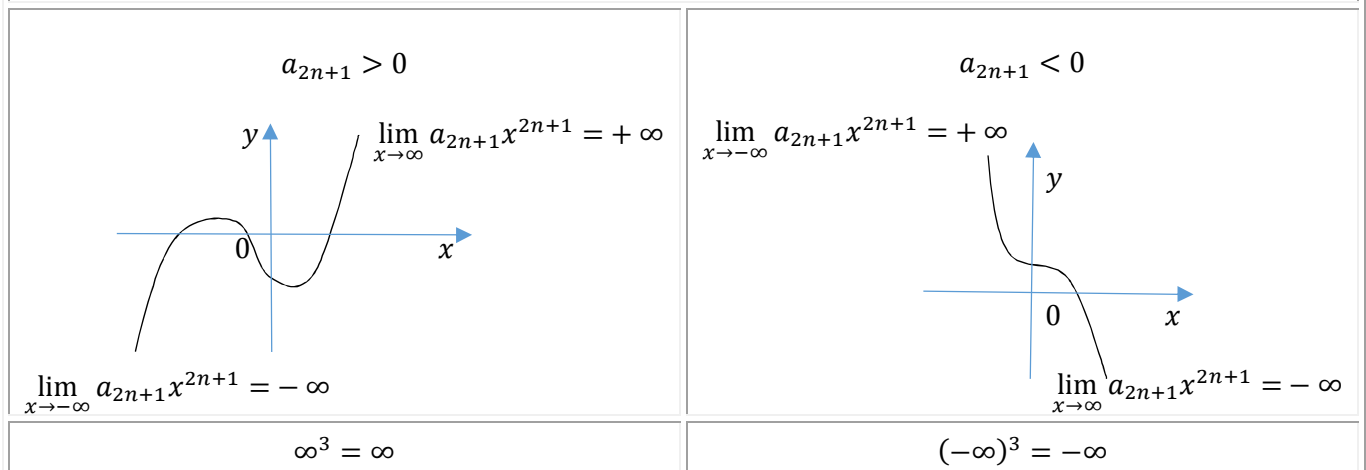
Funcția de gradul întâi $f: \mathbb{R} \rightarrow \mathbb{R}, f(x) = ax + b, a \in \mathbb{R}^*, b \in \mathbb{R}$

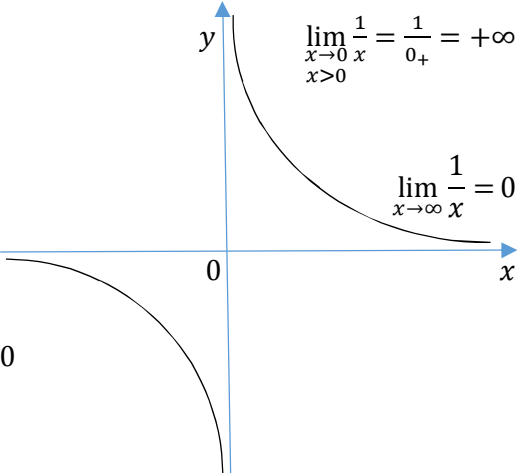
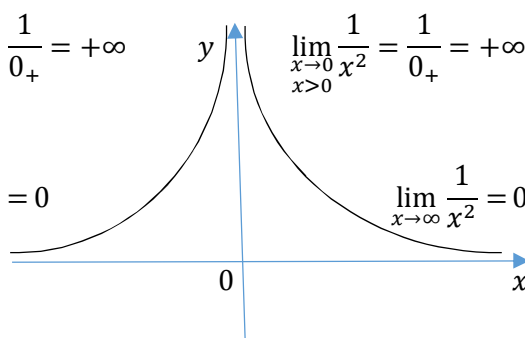
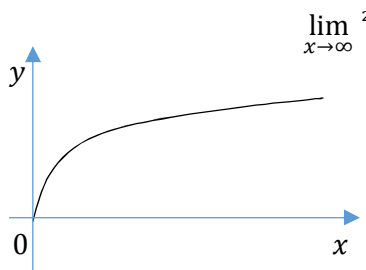
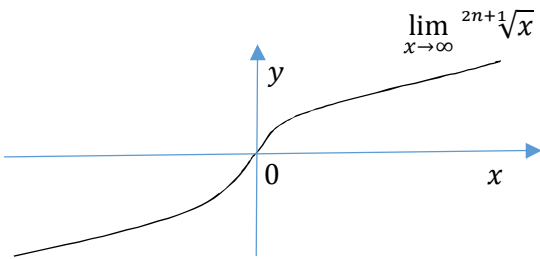


Funcția de gradul al doilea $f: \mathbb{R} \rightarrow \mathbb{R}, f(x) = ax^2 + bx + c, a \in \mathbb{R}^*, b, c \in \mathbb{R}$



Funcția polinomială de grad impar $f: \mathbb{R} \rightarrow \mathbb{R}, f(x) = a_{2n+1}x^{2n+1} + \dots + a_0, a_{2n+1} \in \mathbb{R}^*, a_i \in \mathbb{R}, i = \overline{0, 2n}$



<p>Funcția rațională $f: \mathbb{R}^* \rightarrow \mathbb{R}, f(x) = \frac{1}{x}$</p>  <p> $\lim_{x \rightarrow 0} \frac{1}{x} = \frac{1}{0_+} = +\infty$ $\lim_{x \rightarrow \infty} \frac{1}{x} = 0$ $\lim_{x \rightarrow -\infty} \frac{1}{x} = 0$ $\lim_{\substack{x \rightarrow 0 \\ x < 0}} \frac{1}{x} = \frac{1}{0_-} = -\infty$ </p>	<p>Funcția rațională $f: \mathbb{R}^* \rightarrow \mathbb{R}, f(x) = \frac{1}{x^2}$</p>  <p> $\lim_{\substack{x \rightarrow 0 \\ x < 0}} \frac{1}{x^2} = \frac{1}{0_+} = +\infty$ $\lim_{x \rightarrow -\infty} \frac{1}{x^2} = 0$ $\lim_{x \rightarrow 0} \frac{1}{x^2} = \frac{1}{0_+} = +\infty$ $\lim_{x \rightarrow \infty} \frac{1}{x^2} = 0$ </p>
<p> $\frac{1}{-\infty} = 0$ $\frac{1}{\infty} = 0$ </p>	<p> $\frac{1}{0_-} = -\infty$ $\frac{1}{0_+} = +\infty$ </p>
<p>Funcția radicală $f: [0, \infty) \rightarrow \mathbb{R}, f(x) = \sqrt[n]{x}, n \in \mathbb{N}^*$</p>  <p> $\lim_{x \rightarrow \infty} \sqrt[n]{x} = +\infty$ $f(0) = 0$ </p>	<p>Funcția radicală $f: \mathbb{R} \rightarrow \mathbb{R}, f(x) = \sqrt[n]{x}, n \in \mathbb{N}^*$</p>  <p> $\lim_{x \rightarrow \infty} \sqrt[n]{x} = +\infty$ $\lim_{x \rightarrow -\infty} \sqrt[n]{x} = -\infty$ </p>
<p>$\sqrt{\infty} = +\infty$</p>	<p> $\sqrt[3]{-\infty} = -\infty$ $\sqrt[3]{\infty} = +\infty$ </p>