Zadanie 1. Oblicz:

(a) $\frac{1}{3}+0,7-\sqrt[3]{8}$, (b) $\dfrac{\ln(e^2)+\log_{1/2}2-3^{-2}}{\frac{2}{3}+\frac{1}{5}\cdot\frac{\sqrt{2}}{\sqrt{8}}}$, (c) $\left(\sin\dfrac{\pi}{2}\right)^{-\frac{3}{7}}+\dfrac{\operatorname{tg}\frac{\pi}{4}}{\frac{\pi}{4}}\cdot\left(\cos\dfrac{\pi}{3}-\sin\dfrac{\pi}{3}\right)$.

Zadanie 2. Oblicz następujące granice:

(a) $\lim\limits_{x\to1}\dfrac{x^2-3x-2}{x-2}$, (b) $\lim\limits_{x\to3}\dfrac{x^2-3x-2}{x-2}$, (c) $\lim\limits_{x\to\infty}\dfrac{x^2-3x-2}{x-2}$,

(d) $\lim\limits_{x\to-\infty}\dfrac{x^2-3x-2}{x-2}$, (e) $\lim\limits_{x\to2^+}\dfrac{x^2-3x-2}{x-2}$, (f) $\lim\limits_{x\to2^-}\dfrac{x^2-3x-2}{x-2}$,

(g) $\lim\limits_{x\to2}\dfrac{x^2-2x}{x-2}$, (h) $\lim\limits_{x\to2}\dfrac{\sqrt{3x-6}}{\sqrt{2x-4}}$, (i) $\lim\limits_{x\to0}\dfrac{\sin x}{3x}$,

(j) $\lim\limits_{x\to0}\dfrac{\sin x}{\sin 3x}$, (k) $\lim\limits_{x\to0}\dfrac{\sin^2 x}{3x}$, (l) $\lim\limits_{x\to0}\dfrac{x^2}{\sin 3x}$,

(m) $\lim\limits_{x\to0}\dfrac{\sqrt{3x+1}-1}{\sin 2x}$, (n) $\lim\limits_{x\to0}\dfrac{\sin(x-\frac{\pi}{2})}{x-\frac{\pi}{2}}$, (o) $\lim\limits_{x\to\frac{\pi}{2}}\dfrac{\sin(x-\frac{\pi}{2})}{x-\frac{\pi}{2}}$,

(p) $\lim\limits_{x\to\frac{\pi}{2}}\dfrac{\sin(\pi-x)}{x-\pi}$, (q) $\lim\limits_{x\to0}\dfrac{\sin x^2}{x^2}$, (r) $\lim\limits_{x\to0}\dfrac{\sin 2x}{\operatorname{tg}2x}$,

(s) $\lim\limits_{x\to0}\dfrac{\operatorname{ctg}5x}{\operatorname{ctg}2x}$, (t) $\lim\limits_{x\to0}\dfrac{\sin 2x}{\cos(\pi\cdot x)}$, (u) $\lim\limits_{x\to25}\dfrac{\sqrt{x}-5}{x-25}$,

(v) $\lim\limits_{x\to0}\dfrac{\sqrt{x^2+1}-\sqrt{x+1}}{1-\sqrt{x+1}}$, (w) $\lim\limits_{x\to0}\dfrac{\sqrt{x^2+1}-1}{\sqrt{x^2+25}-5}$, (x) $\lim\limits_{x\to3}\dfrac{27-x^3}{x-3}$.