$$\lim_{x\to 0^+} \frac{\log\left(\arcsin x + 2^x\right)}{\sqrt{\log \frac{1}{\cos x}}} \qquad \sqrt{2}\left(1+\log 2\right)$$

$$\lim_{n\to\infty} \frac{\log\left(3^n + n^3\right)}{\sqrt{n^4+4}-\sqrt{n^4+2}}\left(\left(1-\frac{1}{n}\right)^{80} - \left(1+\frac{79}{n^2}\right)^{40} + \frac{80}{n}\right) \qquad -\log 3 \cdot \binom{80}{3}$$

$$\lim_{n\to\infty} \frac{\left(n+\sin n\right)^7 - \left(n+\sqrt{n}\right)^7}{n^2\sqrt{n^7+7}} \cdot \arctan\frac{1}{n} \qquad -7$$

$$\lim_{x\to 0}\left(\frac{1+x^3}{1+x^2}\right)^{\frac{1}{\sqrt{x^2+1}-\cos^2 x}} \qquad e^{-\frac{2}{3}}$$

$$\lim_{x\to+\infty} \log\left(8^x + 4^x + 2^x + 1\right) \cdot \cot\left(\frac{2}{x}\right) \cdot \left(\sqrt{x^6+x+3} - \sqrt{x^6-x-3}\right) \qquad \frac{3}{2}\log 2$$

$$\lim_{x\to 1} \frac{4^{2^x} - 16}{\sqrt{1-\cos\left(2\pi x\right)}} \qquad \textit{neex.} \quad \pm\frac{32}{\pi}\sqrt{2}\log^2 2$$

$$\lim_{x\to 1} \frac{\sqrt{1+\cos x \log\left(\cos x\right)} - \sqrt{1+\log\left(\cos x\right)}}{\sqrt[3]{\tan x} - \sqrt[3]{\sin x}} \cdot \frac{\sqrt[3]{x}}{\sin^2 x} \qquad \frac{3}{4}$$