$\lim_{x\to -1} \frac{\sqrt{2x+3}-\sqrt{3x+4}}{1+\sqrt[3]{x}} \Rightarrow \frac{2x+3-3x-4}{(1+\sqrt[3]{x})(\sqrt{2x+3}+\sqrt{3x+4})} = \frac{-(x+1)(1+\sqrt[3]{x}+\sqrt[3]{x^2})}{2(1+x)}$ $= -\frac{3}{2}$	6
$\lim_{x\to 1} \frac{2x-7\sqrt{x}+5}{2x-\sqrt{3x+1}} \Rightarrow \frac{(2x-7\sqrt{x}+5)\times 4}{4x^2-3x-1} = \frac{(2\sqrt{x}-5)(\sqrt{x}-1)\times 4}{(4x+1)(x-1)(\sqrt{x}+1)} = \frac{-6}{5}$	7
$\lim_{x\to 0} \frac{a-\sqrt{bx+c}}{x} = \frac{1}{4} \Rightarrow \frac{a^2-bx-c}{x\times 2a} \Rightarrow \frac{-bx+c+a^2}{2ax} = \frac{bx+c-a^2}{2ax}$ $\quad a^2=c$ $\Rightarrow \frac{b}{2a}=\frac{1}{4} \Rightarrow a=2b \rightarrow a=4,\ b=2,\ c=16b^2 \Rightarrow \frac{-b\times 4b}{16b^2} = -\frac{1}{4}$	8
$\lim_{x\to -2\pi} \frac{4+k[\frac{x}{\pi}]}{\sin x} = +\infty$ $\lim_{x\to -2\pi^-} f(x) = \lim_{x\to -2\pi^+} f(x)$ $\begin{cases} -2\pi^+: \frac{4-2k}{\sin x} = \frac{2(2-k)}{0^-} = (-\infty,2) \\ -2\pi^-: \frac{4-3k}{\sin x} = \frac{4-3k}{0^+} \Rightarrow k=(\frac{4}{3},+\infty) \end{cases} \Rightarrow k(\frac{4}{3},2) \Rightarrow \boxed{[-k]=-2}$	9
$\lim_{x\to 1} \frac{b\sqrt{2+\sqrt[3]{x}}-2b}{ax-b}$ $\quad 8a=b$ $\Rightarrow \frac{2b^2+b^2\sqrt[3]{x}-4b^2}{(ax-b)\times 4b} \Rightarrow \frac{b^2\sqrt[3]{x}-2b^2}{(ax-b)\times 4b} \Rightarrow \frac{b\sqrt[3]{x}-2b}{4(bx-b)}$ $\Rightarrow \frac{b^3x-8b^3}{4(b^2\sqrt[3]{x^2}+2b^2\sqrt[3]{x}+4b^2)(ax-b)}$ ($12b^2$) $\Rightarrow \frac{b(x-8)}{48b^2(ax-b)} \Rightarrow \frac{8(x-1)}{48(x-1)} = \frac{8}{48} = \frac{1}{6}$	10