

$$1) \lim_{x \rightarrow 1} \frac{x^2 - 1}{\sqrt{x} - 1} = \lim_{x \rightarrow 1} \frac{(x-1)(x+1)(\sqrt{x}+1)}{(x-1)} = 4$$

$$2) \lim_{x \rightarrow 1} \frac{x(x-2)+1}{x-\sqrt[3]{x}} = \lim_{x \rightarrow 1} \frac{x^2 - 2x + 1}{x - \sqrt[3]{x}} = \lim_{x \rightarrow 1} \frac{(x-1)^2 (x^2 + \sqrt[3]{x^2} + x\sqrt[3]{x})}{x^3 - x}$$

$$\lim_{x \rightarrow 1} \frac{(x-1)^2 \cdot (x^2 + \sqrt[3]{x^2} + x\sqrt[3]{x})}{x(x-1)(x+1)} = 0$$