

$$\lim_{x \rightarrow 0} \frac{\ln(1 - 7x)}{\sin(\pi(x + 7))} = \lim_{x \rightarrow 0} \frac{\frac{\ln(1 + (-7x))}{-7x} \cdot (-7x)}{\sin(\pi x + 7\pi)} = \lim_{x \rightarrow 0} \frac{-7x}{-\sin(\pi x)} = \lim_{x \rightarrow 0} \frac{-7x}{-\pi x} = \frac{7}{\pi}$$

$$\lim_{x \rightarrow 16} \frac{\sqrt[4]{x} - 2}{\sqrt{x} - 4} = \lim_{x \rightarrow 16} \frac{\sqrt[4]{x} - 2}{(\sqrt[4]{x} - 2)(\sqrt[4]{x} + 2)} = \lim_{x \rightarrow 16} \frac{1}{\sqrt[4]{x} + 2} = \frac{1}{4}$$

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