

Calculer la limite de f en x_0

$$1) f(x) = \frac{\sqrt{1+x^2}-1}{x} \sin \frac{1}{x}; \quad x_0 = 0$$

$$2) f(x) = \frac{1-2\sin x}{\tan 6x}; \quad x_0 = \frac{\pi}{6};$$

$$3) f(x) = \frac{1-2x}{(2-\cos x)^2}; \quad x_0 = -\infty$$

$$4) f(x) = \frac{3x + \cos 2x}{-2x + 1}; \quad x_0 = +\infty$$