Limits

Technical Mathematics for Food Technology, MATH 1441

Find the following limits.

$$\lim_{x\to 4}(\sqrt{x}-2-(x-4)) \tag{1}$$

$$\lim_{x\to 0}(\ln x) \tag{2}$$

$$\lim_{x\to 3}\frac{x^3-5}{(x-3)^2} \tag{3}$$

$$\lim_{x\to 0}\frac{x^2-6x+9}{x^2} \tag{4}$$

$$\lim_{x\to 2}\frac{3x-4}{(x-2)^2} \tag{5}$$

$$\lim_{x\to \pi}\frac{\cos 2x}{(\pi-x)^2} \tag{6}$$

$$\lim_{x\to 0}\frac{1}{\sqrt{1-\cos x}} \tag{7}$$

$$\lim_{x\to 5}\frac{x}{x^2-25} \tag{8}$$

$$\lim_{x\to \infty}\arctan x \tag{9}$$

$$\lim_{x\to -1}\frac{2x^2-x-3}{x+1} \tag{10}$$

$$\lim_{x\to -3}\frac{x^2+5x+6}{x^2-x-12} \tag{11}$$

$$\lim_{x\to -4}\frac{\sqrt{x^2+9}-5}{x+4} \tag{12}$$