Math 141 - Calculus Name_____
Section 2.5 Video Worksheet

Definition of a Limit

DEFINITION Let f(x) be defined on an open interval about x_0, except about x_0 itself. We sat that the **limit of f(x) as x approaches x_0 is the number L**, and write

$$\lim_{x\to -5}\frac{x^2+6x+5}{x+5}$$

$$\lim_{x\to 0}\sqrt{4-x}=2$$

$$f(x)=2x-2 \qquad x=-2 \qquad \varepsilon=.02$$

$f(x)=\frac{120}{x}$ $x=24$ $\varepsilon=1$

Try It: $\lim_{x\to -3}\frac{x^2-9}{x+3}$

Try It: $f(x)=\sqrt{x-1}$ $x=5$ $\varepsilon=1$