

Find the limits if they exist.

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

$$(2) \lim_{x \rightarrow 2} \frac{x^2 + 3x - 10}{x^2 - x - 2}$$

$$(3) \lim_{x \rightarrow 2} \frac{\sqrt{x} - \sqrt{2}}{x - 2}$$

$$(4) \lim_{x \rightarrow 8} \frac{x^{\frac{1}{3}} - 2}{x - 8}$$

$$(5) \lim_{x \rightarrow 0} \frac{\cos x}{x}$$

$$(6) \lim_{x \rightarrow 0} \frac{1 - \cos x}{x}$$

$$(7) \lim_{x \rightarrow 0} \frac{1 - \cos x}{x^2}$$

$$(8) \lim_{x \rightarrow 0^+} \frac{\sin(2x)}{\sqrt{x}}$$

(9) How many degrees in .04 radians?

(10) Approximate $\sin .04$, $\cos .04$, and $\tan .04$.