

$$1. \quad \lim_{x \rightarrow 0} \frac{\sec x}{\tan x} =$$

$$2. \quad \lim_{x \rightarrow 0} \frac{1 - \cos x}{x} =$$

$$3. \quad \lim_{x \rightarrow 0} \frac{1}{x-8} + \frac{1}{8} =$$

$$4. \quad \lim_{x \rightarrow 0} \frac{\sqrt{x+3} - \sqrt{3}}{x} =$$

$$5. \quad \lim_{x \rightarrow -4} \frac{x^3 + 64}{x + 4} =$$

$$6. \quad \lim_{x \rightarrow 2} \frac{x^3 + 2x^2 - 5x - 6}{x^3 - 7x + 6} =$$

$$7. \quad \lim_{x \rightarrow 0} \frac{x^4 - 1}{x - 1} =$$

Exer. 8-10: Find: $\lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$

$$8. \quad f(x) = \sqrt{2-x}$$

$$9. \quad f(x) = \frac{4}{x+5}$$

$$10. \quad f(x) = \frac{1}{\sqrt{x+1}}$$