Suppose functions F and G have limits toward c and suppose $a, b \in \mathbf{R}$ and n is a positive integer. Then

Rule #0 (constant) $\lim_{x\to c}(a) = a$.

Rule #1 (linearity) $\lim_{x\to c}(aF(x) + bG(x)) = a \lim_{x\to c}(F(x)) + b \lim_{x\to c}(G(x))$.

Rule #2 (product) $\lim_{x\to c}(F(x)G(x)) = \lim_{x\to c}(F(x)) \times \lim_{x\to c}(G(x))$.

Rule #3 (quotient) Provided $\lim_{x\to c}(G(x)) \neq 0$, we have $\lim_{x\to c} \dfrac{F(x)}{G(x)} = \dfrac{\lim_{x\to c}(F(x))}{\lim_{x\to c}(G(x))}$.

Rule #4 (power) $\lim_{x\to c} F(x)^n = \left(\lim_{x\to c} F(x)\right)^n$.

Rule #5 (root) Provided $\left(\lim_{x\to c} F(x)\right)^{1/n}$ is real, $\lim_{x\to c} F(x)^{1/n} = \left(\lim_{x\to c} F(x)\right)^{1/n}$.

Rule #6 (polynomial) Provided F is a polynomial, we have $\lim_{x\to c} F(x) = F(c)$

Rule #7 (rational) Provided F is a rational function and $c \in \mathrm{dom}(F)$, we have $\lim_{x\to c} F(x) = F(c)$.