Description The properties of limits are intuitive but important for simplifying problems.

Setup

$$\lim_{x \to c} f(x) = L \qquad \lim_{x \to c} g(x) = M$$

Limits Properties

Sum Property	$\lim_{x \to c}(f(x) + g(x))$	$=$	$L + M$
Difference Property	$\lim_{x \to c}(f(x) \times g(x))$	$=$	$L - M$
Constant Multiple Property	$\lim_{x \to c}(k \times f(x))$	$=$	$k \times L$
Quotient Property	$\frac{\lim_{x \to c}(f(x))}{\lim_{x \to c}(g(x))}$	$=$	$L \div K$
Exponent Property	$\lim_{x \to c}(f(x))^{\frac{r}{s}}$	$=$	$L^{\frac{r}{s}}$