

$\lim_{x \rightarrow \infty} \frac{100}{x^2 + 5}$	0	degree of Num < degree of Denom
$\lim_{x \rightarrow -\infty} \frac{7}{x^3 - 20}$	0	degree of Num < degree of Denom
$\lim_{x \rightarrow \infty} 3x^3 - 1000x^2$	∞	degree of Num > degree of Denom
$\lim_{x \rightarrow -\infty} x^3 + 5x^2 + 1$	$-\infty$	degree of Num > degree of Denom
$\lim_{x \rightarrow \infty} x^5 - x^2 + x - 10$	∞	degree of Num > degree of Denom
$\lim_{x \rightarrow -\infty} \frac{x + 7}{3x + 5}$	$\frac{1}{3}$	degree of Num = degree of Denom
$\lim_{x \rightarrow \infty} \frac{7x^2 + x - 100}{5x - 2x^2}$	$-\frac{7}{2}$	degree of Num = degree of Denom

$\lim_{x \rightarrow \infty} \frac{x^2 - 3x + 7}{x^3 + 10x - 4}$	0	degree of Num < degree of Denom
$\lim_{x \rightarrow \infty} \sqrt{\frac{x^2 + 7}{4x^3 + 5}}$	0	degree of Num < degree of Denom
$\lim_{x \rightarrow \infty} \frac{x^2 + 7}{\sqrt{4x^4 + 5}}$	$\frac{1}{2}$	degree of Num = degree of Denom
$\lim_{x \rightarrow -\infty} \frac{x^2 + 7}{\sqrt{4x^4 + 5}}$	$\frac{1}{2}$	degree of Num = degree of Denom
$\lim_{x \rightarrow \infty} \frac{x + 2}{\sqrt{9x^2 + 5}}$	$\frac{1}{3}$	degree of Num = degree of Denom
$\lim_{x \rightarrow -\infty} \frac{x + 2}{\sqrt{9x^2 + 5}}$	$-\frac{1}{3}$	degree of Num = degree of Denom