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$\lim_{x \rightarrow a} f(x)$   
 $x \rightarrow a$  number

Plug in the number  
to the function

If the result is  
a # that is  
your limit and  
a point

$\frac{0}{0}$  do algebra  
to find the  
limit  
- factoring  
- simplifying complex  
fraction

$\frac{\#}{0}$  you have a  
vertical asymptote  
- Pick a # left  
and/or right to  
find if you are  
approaching  
-  $\infty$  or  $\infty$

$\lim_{x \rightarrow \pm\infty} f(x)$   
 $x \rightarrow \pm\infty$

Numerator grows  
faster

limit  $\rightarrow -\infty$  or  $+\infty$   
No HA

Denominator grows  
faster

limit  $\rightarrow 0$   
HA  $y=0$

Degree of numerator is the  
same as the denominator  
limit  $\rightarrow$  leading coefficients  
HA is leading coefficients