

End Behavior

* End Behavior of a function refers what is happening to the y -values of a function as x approaches positive ∞ ; as x approaches negative ∞ .

* looking at a graph we determine

as $x \rightarrow -\infty$; as $x \rightarrow \infty$

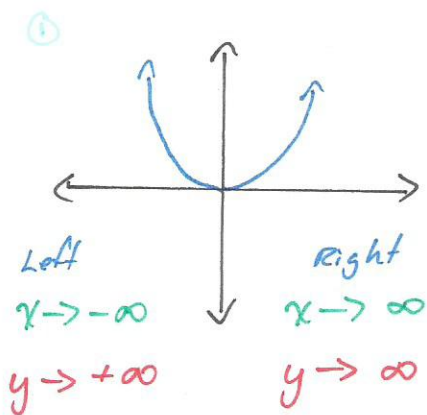
$y \rightarrow ?$

looking at left side

$y \rightarrow ?$

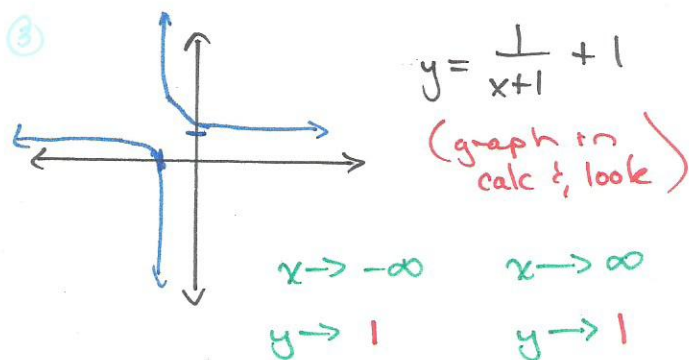
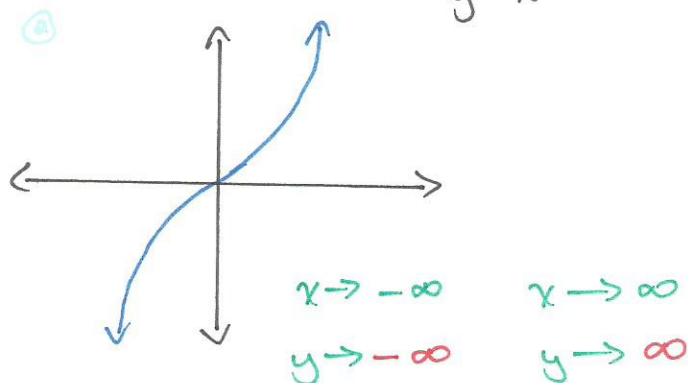
looking at right side

Example: $y = x^2$



* as x goes to $-\infty$; ∞
the y -values keep going
up towards ∞
 \therefore left & right side
go up to ∞

$y = x^3$



* the y values both approach
1 as x goes to $-\infty$; ∞