1 | Types of Discontinuity

1.1 | Infinite Discontinuity (verticle asymtote)

Double Sided Limit: does not exist **Function**: not defined

$f(x) = \frac{x^2+2}{x^2-4}\ where\ x = 2$

1.2 | Jump Discontinuity (gap)

Double Sided Limit: does not exist **Function**: defined

"a ceiling function" $f(x) = \lceil x \rceil\ \ where\ x = 3$

1.3 | Point Discountinuity (hole)

Double Sided Limit: exists **Function**: not defined

$f(x) = \frac{x^6-1}{x^{10}-1}\ where\ x = 1$

Division by 0/infinite discontinutiy => undefined

Hole => not defined

Sq. Root Functions => not defined when x={negative number}