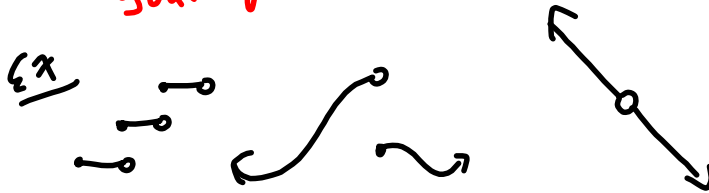


LT15: I can determine if a function is continuous or discontinuous by using the Continuity Test.

3.5 Continuity

Discontinuous functions are functions that can't be graphed w/out lifting your pencil.



In order for a fn. to be continuous, it must pass the continuity Test.

① $f(c)$ exists Ex $y = 3x^2 + x - 7$;
 $f(1) = 3(1)^2 + (1) - 7$ $x = 1$
 $f(1) = -3$ ✓ Yes, a # exists

② Fn. approaches the same y-value from the left and right sides of $x = c$

From the left

x	y
.9	
.99	
.999	

From the right

x	y
1.1	
1.01	
1.001	

③ Step 1

$x = 3$

Step 2

$x \rightarrow -3$ from left

$x \rightarrow -3$ from right

Step 3

So, it is continuous at $x = 1$