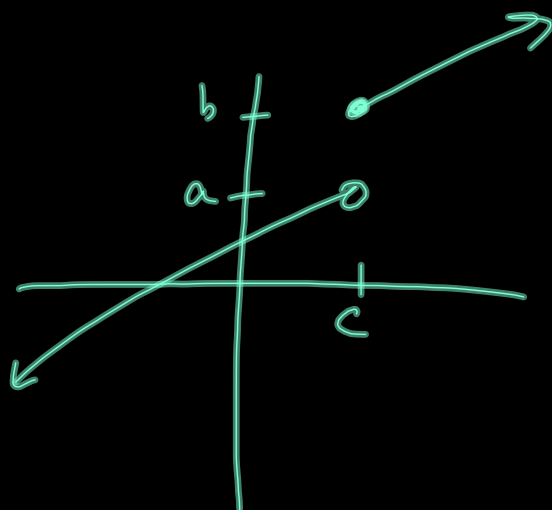
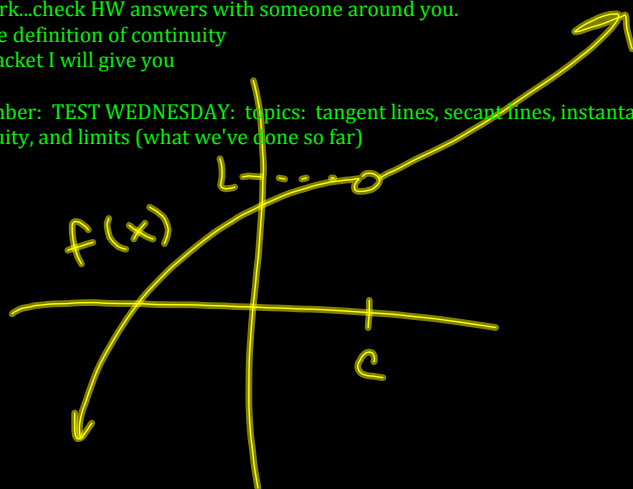


Bellwork...check HW answers with someone around you.  
Finalize definition of continuity  
HW...packet I will give you

Remember: TEST WEDNESDAY: topics: tangent lines, secant lines, instantaneous & average velocity, continuity, and limits (what we've done so far)



3 Reg'nts for continuity at a point

①  $\lim_{x \rightarrow c} f(x)$  exists

②  $f(c)$  exists

③  $\lim_{x \rightarrow c} f(x) = f(c)$

The graph of a function f.pdf - Adobe Reader

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Limits and Continuous Functions

Name: \_\_\_\_\_  
Period: \_\_\_\_\_ Date: \_\_\_\_\_

I. The graph of a function f is shown below.

$f(-7) \text{ dne}$

$f(2) \neq \lim_{x \rightarrow 2} f(x)$

$\lim_{x \rightarrow 4} f(x) \text{ dne}$

Answer the following questions about function f.

- $f(-5) =$
- $f(2) =$
- $f(4) =$
- $\lim_{x \rightarrow -7} f(x) =$
- $\lim_{x \rightarrow -5} f(x) =$
- $\lim_{x \rightarrow 2} f(x) =$

In order for  $f(x)$  to be continuous at  $x = c$ , the following must be true:

- ①  $f(c)$  must exist
- ②  $\lim_{x \rightarrow c} f(x)$  must exist
- ③  $\lim_{x \rightarrow c} f(x) = f(c)$

Be able to draw an example of discontinuity for each of the three reasons above.