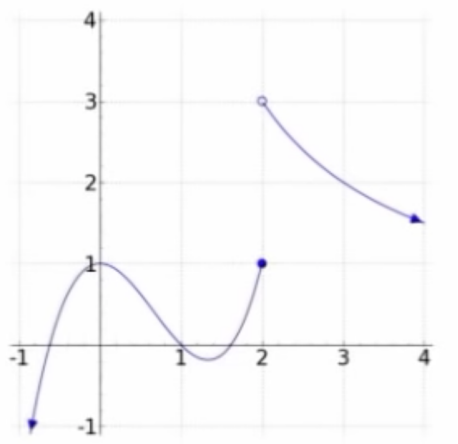
Booklet 1

Limit Restaurant

Do Now | Watch https://youtu.be/mJv2_bWNrUA

Isaac is ordering a biryani buffet at the Limit Restaurant. There, he finds that his buffet will cost $15 per pound that it weighs. There's an exception to this rule, though. If his meal is *exactly* 2 pounds, then everything is free. The manager mentioned that the last time this happened was 1934, though. Can you represent this situation using 1) a piecewise function and 2) a graph?

Solution | https://youtu.be/tP3QxiwBkME



Big Idea | Watch https://youtu.be/ua5oyPnPYFw

1. Explain the meaning of the following: For real numbers a and L, $\lim_{x \to a} f(x) = L$

   For real numbers a and L,

   $\lim_{x \to a^-} f(x) = L$ means

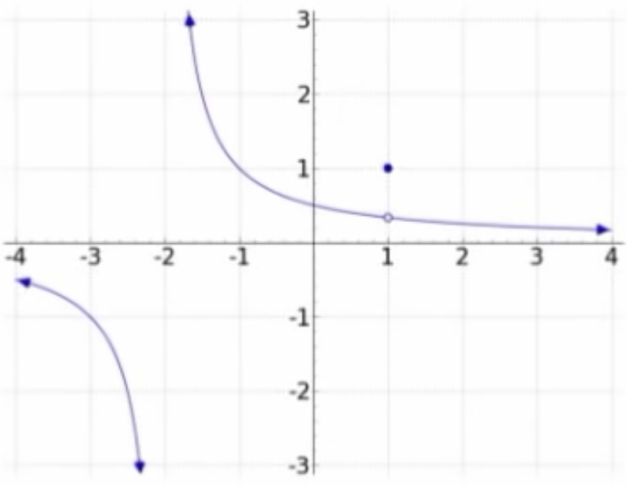
   $\lim_{x \to a^+} f(x) = L$ means

2. Describe the behavior of y = g(x) when x is near 2.

Solution | https://youtu.be/yZIcxo4tEjY

Exit Slip | Watch https://youtu.be/nmS8e9YJGJ8

There's one function with… two limits? What's happening? Find out in the exit slip, where you must find both limits of one function. Here it is:



Solution | https://youtu.be/HGuNntEu_jo

Homework | Watch https://youtu.be/Py4atp8tDME
Wow! Today's homework has a weird problem. You have to take a limit as x goes to infinity? Watch the video and solve today's homework.
Solution | https://youtu.be/xVkh_3dDELk

The key will be found on the bottom of the website.