

**Due the day after
the Chapter 1**

Discovering LIMITS

Name:
class period:
lab period:

I want you to visit a web-site to help to *gear-up* for calculus! Our first topic of calculus will be LIMITS.

Type in the address: <http://www.calculus-help.com/funstuff/phobe.html>. Scroll down the page a little bit. I want you to go through Lesson 1 to Lesson 4.

In Lesson 1: What is a Limit? It starts out by saying that you have heard a lot about limits already – but you haven't heard anything about limits. That's okay. I want you to have an introduction to limits before the class discussion. I think this website does a great job at providing that introduction.

Chapter One: Limits and Continuity

Lesson 1: [What is a Limit?](#)

Lesson 2: [When Does a Limit Exist?](#)

Lesson 3: [How do you evaluate limits?](#)

Lesson 4: [Limits and Infinity](#)

While you go through the lessons I want you to answer the following questions.

1. A limit is the _____ of a function.
2. In your own words, what is another name for the height of a function?
3. What is the $\lim_{x \rightarrow 2} \frac{x^2 - 6x + 8}{x - 2} =$
4. Give a “real life” example of *(similar to the diner example – please entertain me)*
 - a) when a limit exists
 - b) when a limit does not exist . . .
5. What are the techniques for evaluating limits?

Discovering CONTINUITY

Name:
class period:
lab period:

I want you to revisit the website <http://www.calculus-help.com/funstuff/phobe.html>. This time I want you to go through lessons 5 and lesson 6.

Chapter One: Limits and Continuity

Lesson 5: [Continuity](#)

Lesson 6: [The Intermediate Value Theorem](#)

1. Draw a picture of a continuous function
2. Draw examples of three different non-continuous functions. Label each graph with the type of discontinuity it demonstrates.
3. Draw a picture of the Intermediate Value Theorem.
4. Write your own “real-life” example of the IVT (Intermediate Value Theorem)
(please entertain me, again)