AP Calculus AB
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Lesson 0401
Tuesday, March 31, 2020

I have created a practice test on AP Classroom. It is called Practice Exam 0401 MCQ. It is due Sunday at 11:45 PM. Please complete the exam, I will grade it to see where we are.

First, you will need to download, install, and verify the "Lockdown Browser":

`https://apclassroom.collegeboard.org/lockdown`

Please let me know if you have any problems accessing the assessment.

Your assignment for today is to read Section 4.6 on L'Hospital's Rule. Then we will have finished all the material in Thomas that you need for the AP Exam! So we will then focus on reviewing and practicing.

L'Hospital's Rule basically says that if you want to compute $\lim_{x\to a}\dfrac{f(x)}{g(x)}$, and both functions go to zero at a, and both functions are differentiable at a, then

$$\lim_{x\to a}\frac{f(x)}{g(x)}=\lim_{x\to a}\frac{f'(x)}{g'(x)}.$$

The tricky part is that you *always have to check that hypothesis.* If it isn't of the form $\dfrac{0}{0}$, or one of the other indeterminate forms discussed in the section, then *you can't use the rule.*

Moreover, College Board is fussy about how you write problems involving L'Hospital's Rule; we will go over that later.

Practice what you have learned by completing these problems:

- Thomas §4.6 # 3, 5, 7, 14, 21, 24, 28

After your have done this, please acknowledge that by filling out the following Google Forms checkin.

0402 AP Calculus AB Checkin