

# Calculus 1 IBDPE Final Exam Info

## **Time and Location**

Wednesday, January 14, 10:10-12:00 at D.A.E. 5825 (for Even student ID number) and D.A.E. 5824 (for Odd student ID number).

## **Homework 15**

Homework 15 will be due on January 14 as well. Solutions will be posted on or before January 12 for you to check your answers – please use them wisely.

## **Optional Review Session**

An optional review session will be held on Monday, January 12 at our classroom D.A.E. 5825. No lecture material will be presented. Students attending the session should prepare his/her own class/exam related questions to ask.

## **Alternative Office Hours**

Office hours before the final exam: Chia-Jung Chang at 16:00-18:00 on Monday, January 12 and Chih-Chung Liu 16:00-18:00 on Tuesday, January 13.

## **Ground Rules**

- Closed book. No notes. No calculator. The only allowed items on your desk are pen/pencil, erasers/whiteout, and ruler. No food is allowed. Coffee or beverage is allowed, although discouraged.
- Please use the bathroom before the exam. If you absolutely have to go to bathroom during the exam, you need to go to the designated ones that we have inspected before the exam. You also need to verify to me that your pockets are empty before you go.
- No hat nor sunglasses may be worn unless required by medical condition.
- ABSOLUTELY no electronic device may be turned on during the exam. Any voice from cellular phone is considered cheating.
- Makeup exam is only possible when a student is absent due to university official duties.

## **Exam Reviewing**

You may review your graded exam after winter break by coming to instructor's office. However, you may not bring back the graded exam.

## **Tools**

Only writing tools are allowed during this exam.

## **Format**

The exam will consist of two parts. The first part contains three problems on the materials covered after the second midterm, namely, sections 7.7, 8.2~8.5. You have to do ALL three problems on this part. The second part contains seven problems selected from materials tested on the first two midterms. You only have to do five problems from them.

## **Topics to Cover**

This exam in principle covers all materials covered throughout this semester. The explicit topics are topics listed in Exam 1 Info and Exam 2 Info sheets, plus

- *Inverse Trigonometric Functions*: You need to know the basic definitions of inverse trigonometric functions. You do NOT need to memorize the formulae for their differentiations and integrations: they will be provided when needed.
- *Techniques of Integration*: All problems with difficulties less than or equal to those of homework problems are potential exam problems. For partial fraction decompositions, you will only encounter factorizations with reasonably clear factors. Basic trigonometric identities such as square sum/difference, half angle/double angle identities are expected to be known.

## **Study Suggestions**

- Get enough sleep the night before the exam.
- Practice homework problems THOROUGHLY and be able to appreciate the insight of the problems so that you can do those problems in any forms and with moderate variations. Exam problems are modelled on homework problems.
- The exam, as always, emphasizes on conceptual understanding rather than mechanical computations. If you are stuck in long computations, it is recommended to rethink your process and see if you are forgetting some

part of the concepts.

- You should NOT expect problems from exam 1 and exam 2 to appear, nor not appear, on the final exam. They are independent.