

Name: \_\_\_\_\_ Student ID \_\_\_\_\_

**Prince of Songkla University**  
**Faculty of Engineering**

**Final Exam, Semester II**  
**Date: February 27, 2006**  
**Subject: 230-381 –Drawing**  
**(Chemical Engineering Drawing)**

**Academic Year: 2005 – 2006**  
**Time: 9:00 – 10:30 AM**  
**Room: A401**

---

ทูลจริตในการสอบโทษขั้นต่ำคือ ปรับตกในรายวิชาที่ทูลจริต และพักการเรียน 1 ภาคการศึกษา

**Instructions:** There are a total of 3 parts 3 pages not including the cover sheet. Place your name and the student ID number on every page. Students are allowed to use a pen or pencil, notes from class, and an English-Thai dictionary. You have ONE HOUR to complete the exam. No exams are allowed to leave the room.

Points Distribution (For Grader Only)		
Part	Points Value	Score
I	20	
II	40	
III	40	
Total	100	

Exam prepared by  
Ram Yamsaengsung  
February 22, 2006

**PLEASE CHECK TO MAKE SURE THAT  
YOU HAVE ALL 3 PAGES OF THE EXAM BEFORE BEGINNING  
(not including the cover sheet).  
GOOD LUCK!**

**Prince of Songkla University**  
**Faculty of Engineering**

**Final Exam, Semester II**  
**Date: February 27, 2006**  
**Subject: 230-381 –Drawing**  
**(Chemical Engineering Drawing)**

**Academic Year: 2005 – 2006**  
**Time: 9:00 – 10:30 AM**  
**Room: A401**

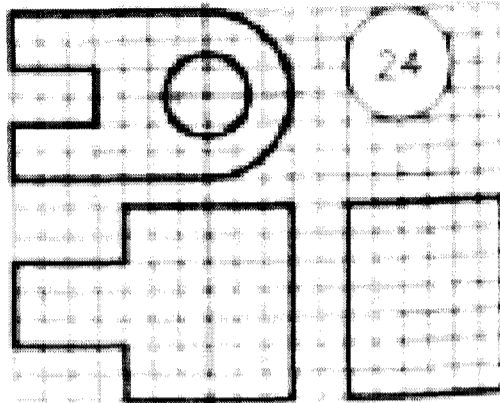
---

**Part I. Short Answers (20 points)**

1. What is CAD? What are the advantages of using CAD? **(4 points)**
  
2. In the 2-D Drawing, name 8 types of lines or shapes that can be drawn. **(4 points)**
  
3. Name 6 types of solids that can be drawn using AutoCad. **(3 points)**
  
4. If you want to draw a circle with a diameter of 0.5 mm that is tangent to a line and a circle, what command do you need to use? Explain how to draw it. **(5 points)**
  
5. What are the 2 ways that a Polygon that can be drawn? **(2 points)**
  
6. What is the difference between a Fillet and a Chamfer? Under which menu is it located in AUTOCAD? **(2 points)**

**II. Two-Dimensional Drawing (40 points)**

1. Fill in the missing hidden line in the figure below. **(5 points)**

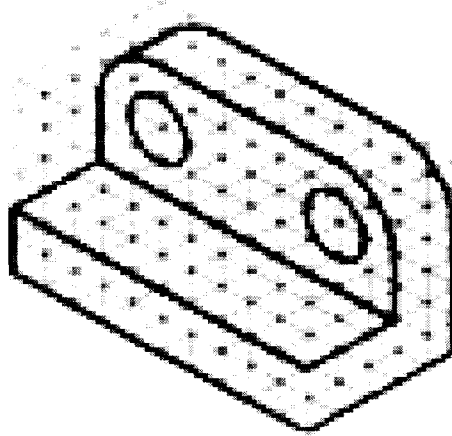


2. Sketch by hand the isometric view of figure above. **(15 points)**

3. Explain step-by-step how you can draw the **Top View** of the figure above using AutoCad. **(20 points)**

### III. Three-Dimensional Modeling (40 points)

1. Explain step by step how to draw the figure below using AutoCad. Make sure to include all commands and modification techniques. (40 points)



---

**Congratulations and Have a Good Summer!!!**