

## Quiz 1



The first letter of  
your LAST name

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First Name

Last Name

## 24-688 INTRODUCTION TO CAD/CAE TOOLS Fall 13

Carnegie Mellon University

### QUIZ 1

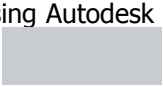
- Date:** 9/19/2013 (Thu)  
**Time:** Section A: 10:30-11:20  
Section B: 11:30-12:20  
Section C: 12:30-13:20  
**Format:** Closed book, closed notes, no web browsing, no emailing  
**Weight:** 8% of total grade

**Note:**

- \* You have only 50 min. Be careful about the time allocation.
- \* If you are in Section A or Section B, do NOT discuss the quiz problems with anyone until 6:00pm.
- \* Do NOT add/delete/replace/alter any files in your submission directory after your quiz time. You will receive no credit for files submitted/replaced/alterd after your quiz time.

Q1-1 (40 pts)	Q1-2 (60 pts)	Total (100 pts)

**Q1-1**  
(40 pts)

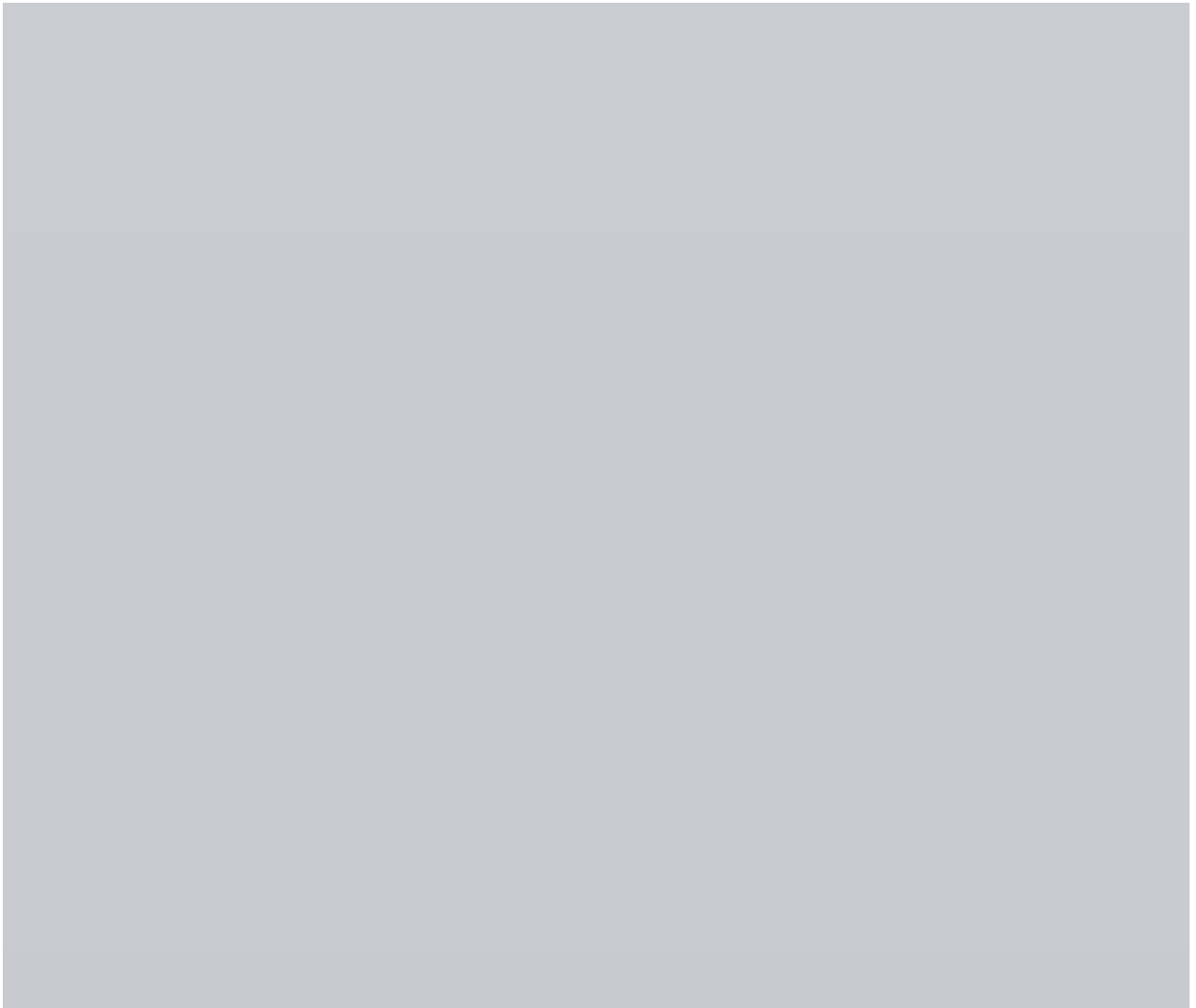
Using Autodesk SketchBook Designer, draw an image that looks as close as possible to the image of  shown below. Aim for an appropriate quality and level-of-detail of your work so you can complete the drawing in 15-25 min. Save your DWG file frequently so you do not lose your work even if the software crashes.

Create under your AFS submission directory a sub-directory called q1-1, and upload the following two files to the sub-directory:

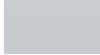
- Image file (jpg, png, tif, gif, ...) – name the file `your_andrew_id.jpg`, `your_andrew_id.png`, etc.
- DWG file – name the file `your_andrew_id.dwg`

Grading criteria:

- Correct shape and proportion
- Proper usage of layers
- Smooth and realistic rendering of the surface



**Q1-2**  
(60 pts)

Using Autodesk Inventor create a 3D model of a  shown in the drawing below. Note: all the dimensions are in mm.

Save your IPT file frequently so you do not lose your work even if the software crashes.

Create under your AFS directory a sub-directory called q1-2, and upload the following two files to the sub-directory:

- Part file – name the file `your_andrew_id.ipt`
- Text file that contains the volume of the part measured in cubic millimeters – name the file `your_andrew_id.txt`.

