

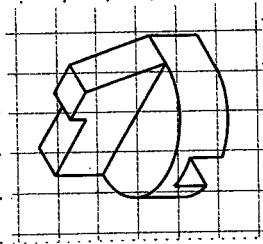
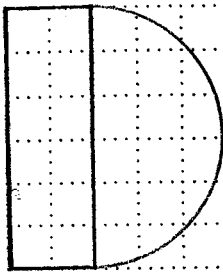
# ES 100 Introduction to Engineering Design

## Homework 1

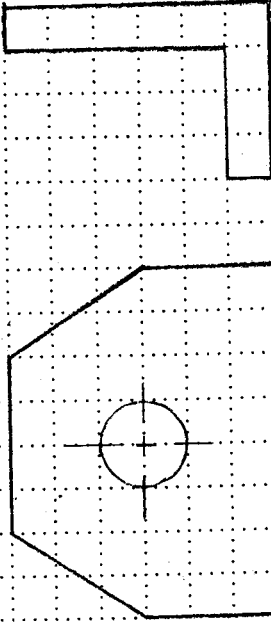
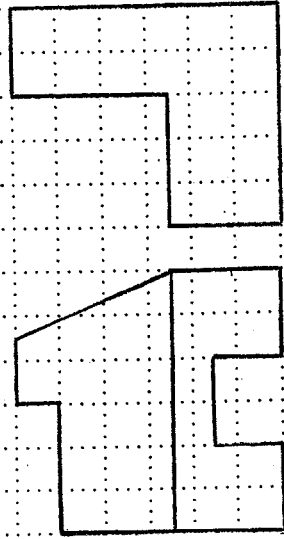
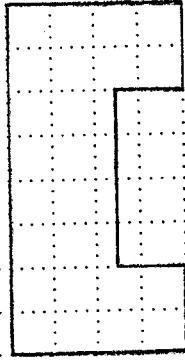
Name: \_\_\_\_\_

- (a)-(d) Complete the missing lines on these orthographic views (front, top and side views)  
 (e)-(k) Construct the orthographic views (front, top and side views) to describe the objects from following isometric views.

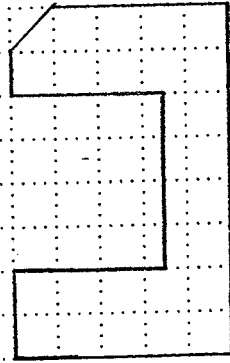
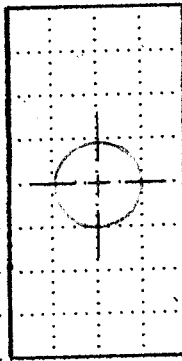
(a)



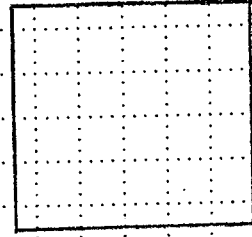
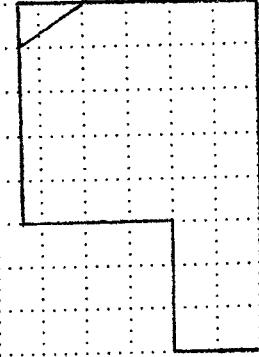
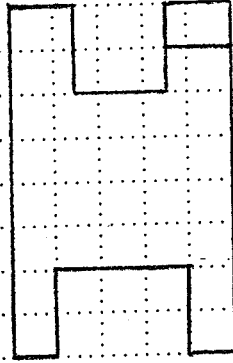
(b)



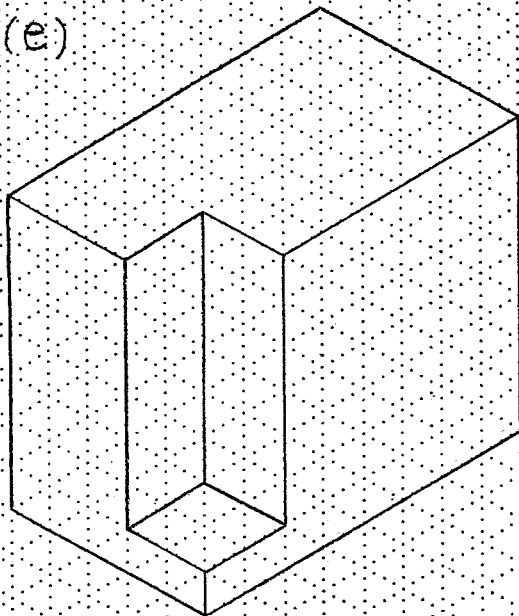
(c)



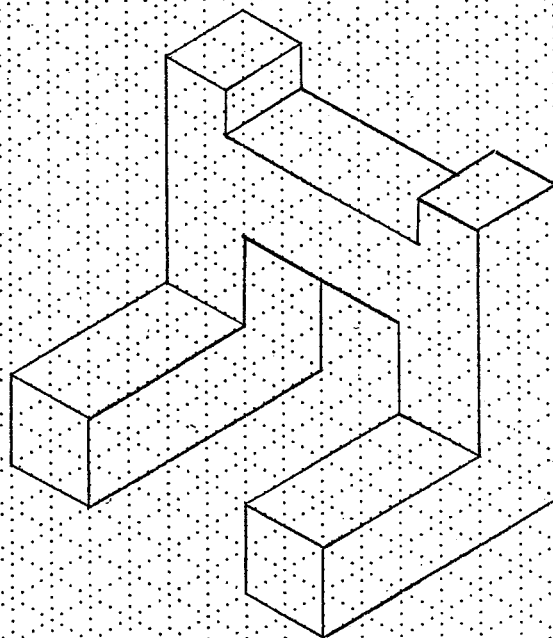
(d)



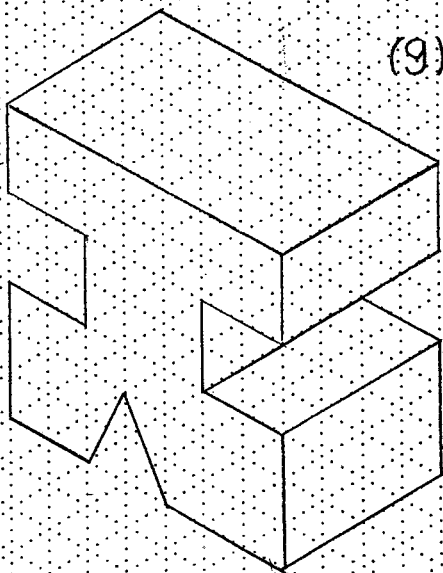
(e)



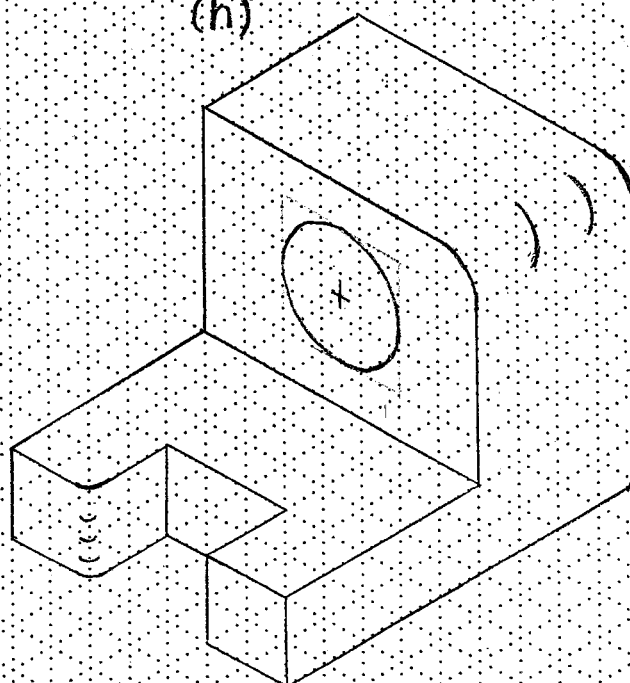
(f)



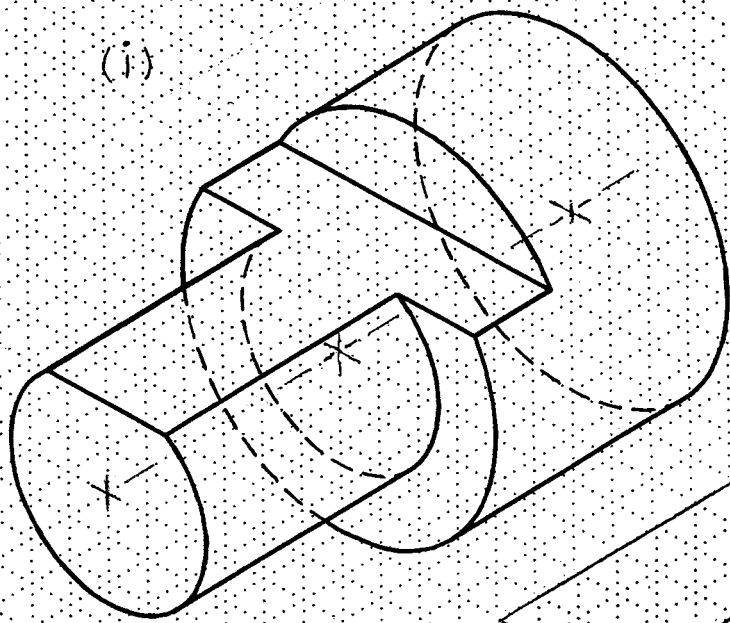
(g)



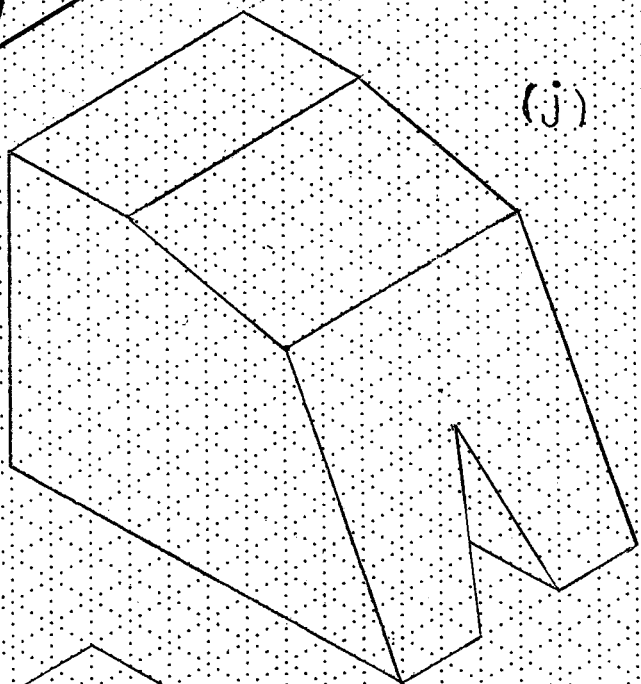
(h)



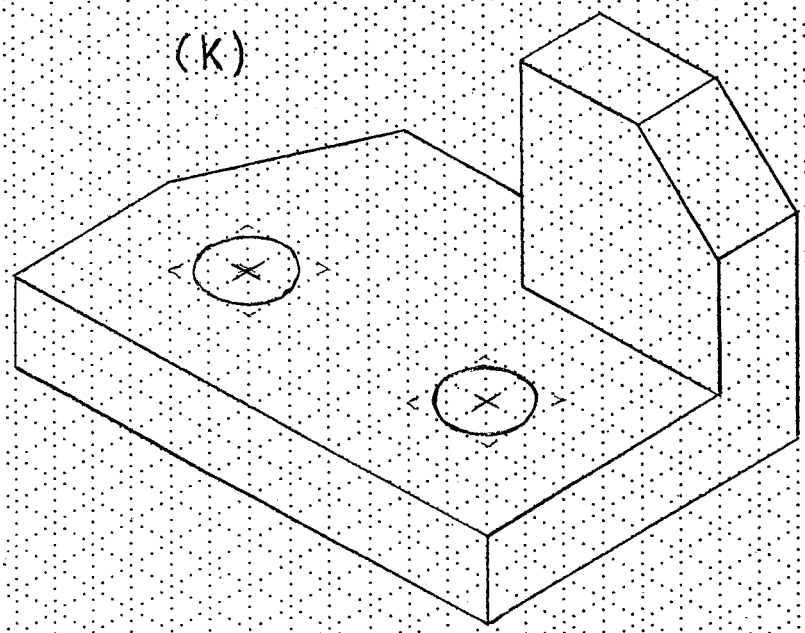
(i)



(j)



(k)



(e)

L

L

Front

(f)

L

L

Front

L

NAME .....

DATE .....

(h)

(9)

L

L

L

Front

L

L

Front

NAME .....

DATE .....

(i)

(j)

L

L

L

Front



Front

NAME .....

DATE .....

Handwriting practice grid with dotted lines. The grid is mostly blank, with some faint markings and a small 'L' shape near the bottom center.

(K)

L

L

Front

L

L

L

NAME .....	DATE .....
------------	------------

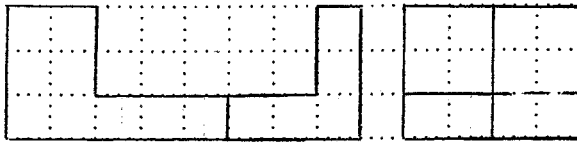
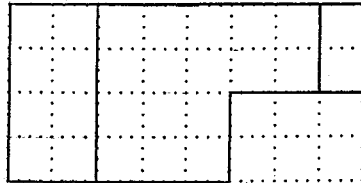
# ES 100 Introduction to Engineering Design

## Homework 2

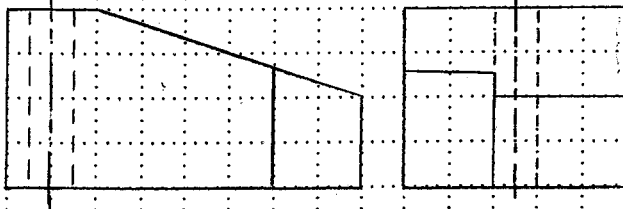
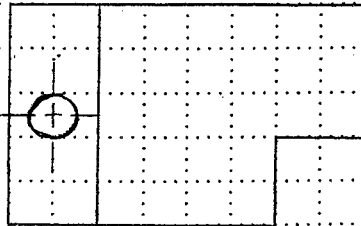
Name: \_\_\_\_\_

(a)-(f) Draw an isometric view of each object according to its orthographic views.

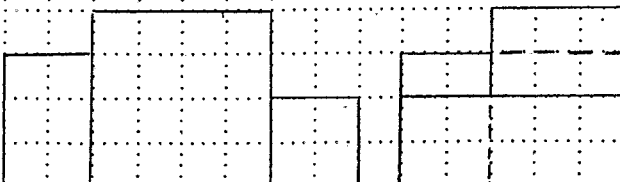
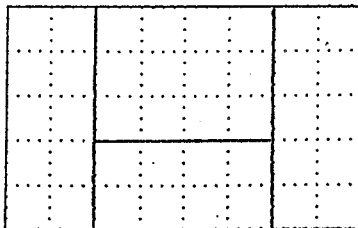
(a)



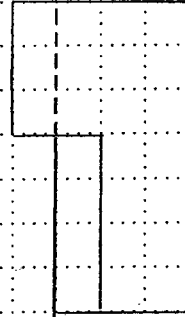
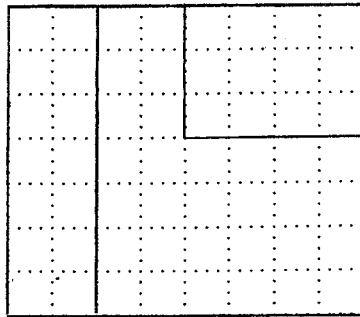
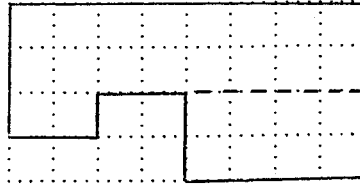
(b)



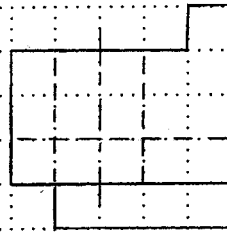
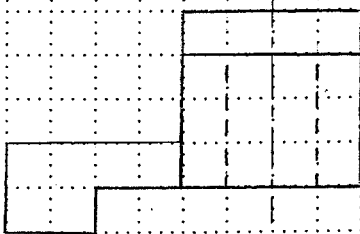
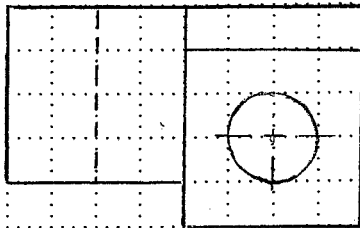
(c)



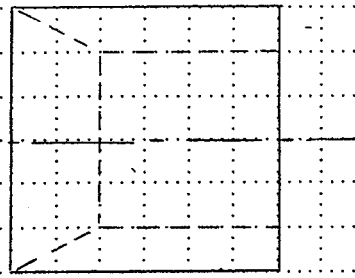
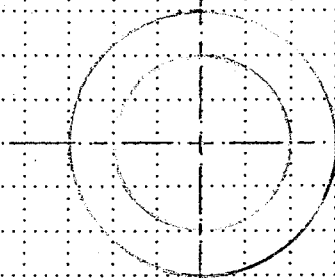
(d)



(e)



(f)



(a)

✓

(b)

✓

(c)

✓

DATE .....

NAME .....

(d)

✓

(e)

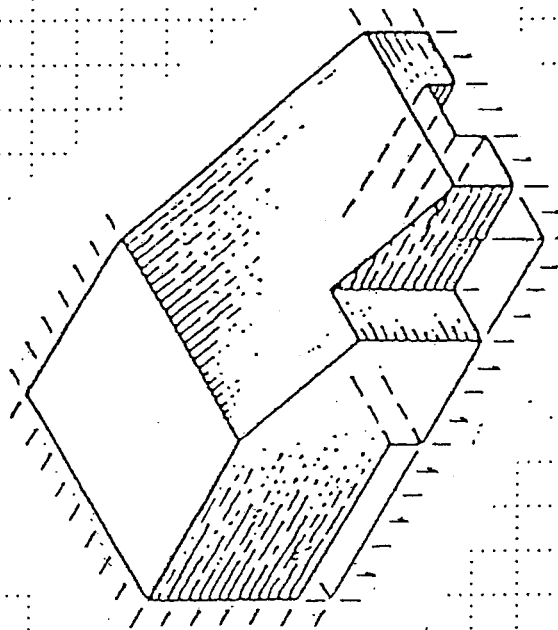
✓

(f)

—

DATE .....

NAME .....



DRAW OBLIQUE VIEW OF THE OBJECT  
ACCORDING TO THE DIMENSIONS.

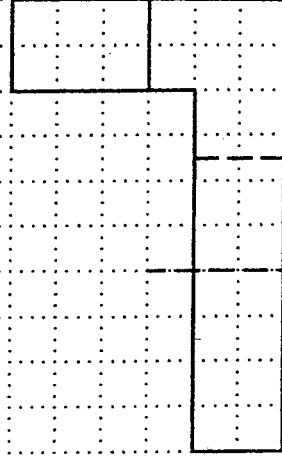
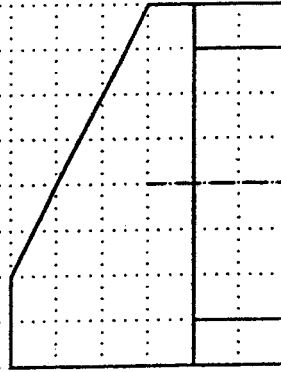
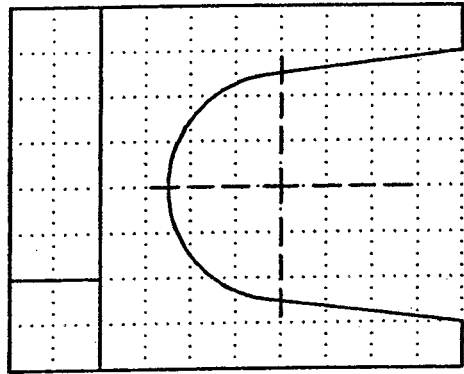
L

(9) OBLIQUE VIEW PRACTICE

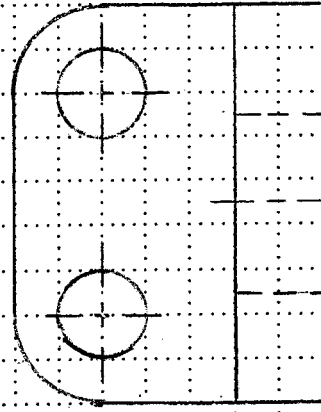
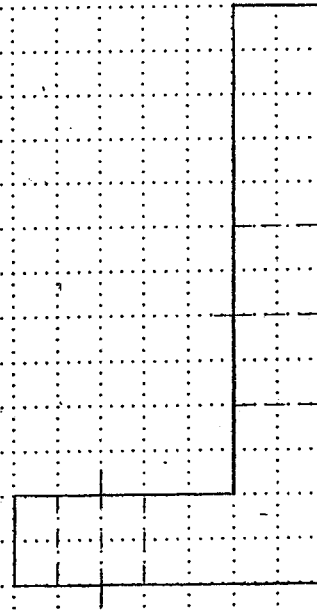
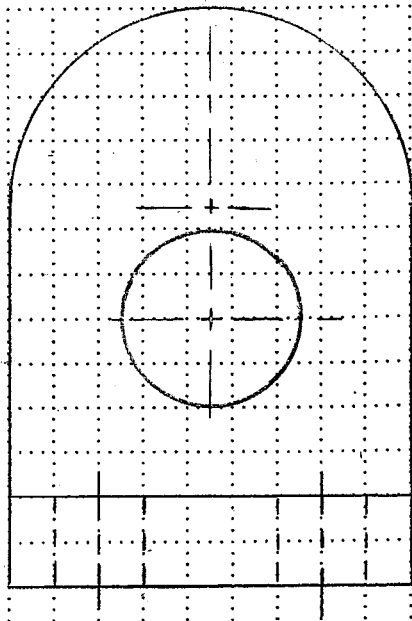
NAME

DATE

GRIDS ARE 10 MM. SKETCH EXTENSION, DIMENSION LINES AND ARROWS.  
NEATLY LETTER DIMENSION VALUES. (METRIC SYSTEM)



GRIDS ARE .25 IN. SKETCH EXTENSION, DIMENSION LINES AND ARROWS.  
NEATLY LETTER DIMENSION VALUES. (DECIMAL INCH SYSTEM)



(1) DIMENSIONING PRACTICE

NAME .....

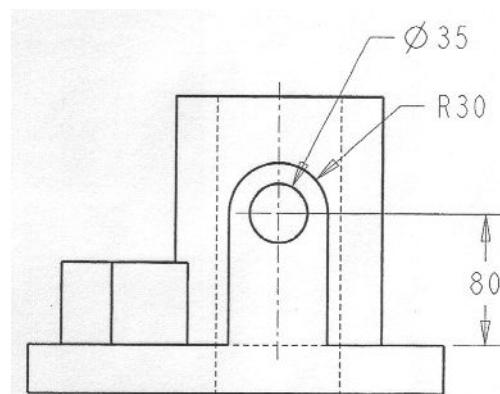
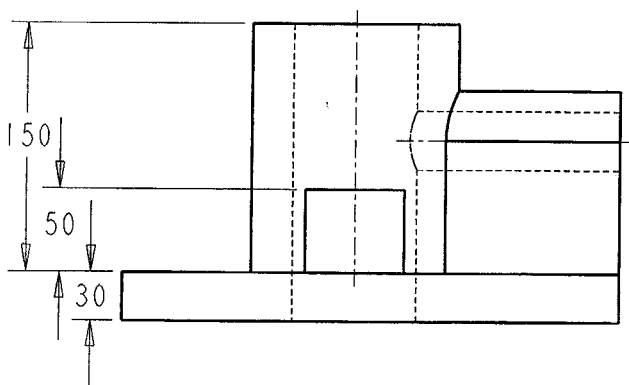
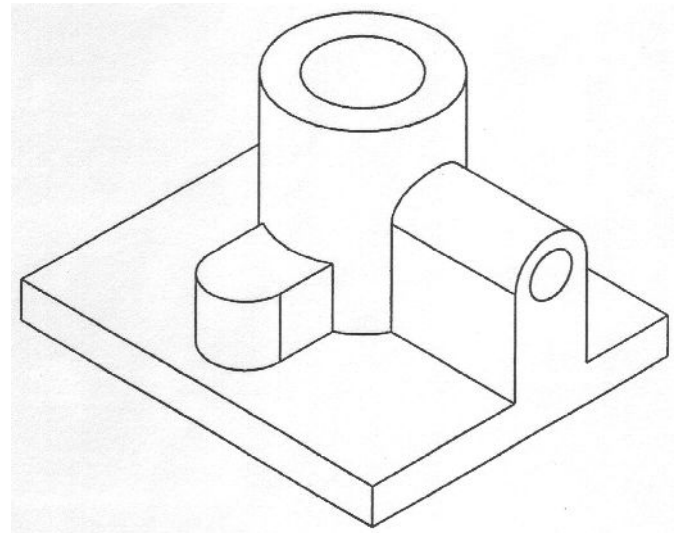
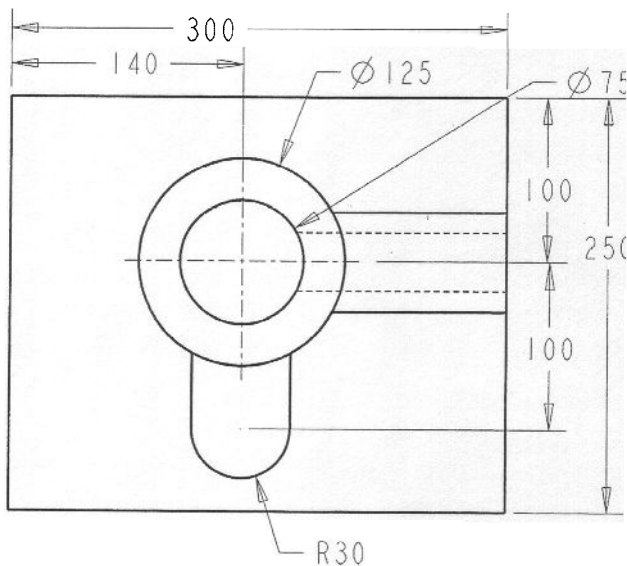
DATE .....

# ES 100 Introduction to Engineering Design Homework 3

Submit your disk and all prints in a folder.

1. Read Lesson 3 in the textbook and practice it. Print your result.
2. Read Lesson 4 in the textbook and practice it. Print your result.
3. Use Pro/Engineer to create a bracket as following (design your own key teeth). Print your result in isometric view (wireframe with hidden lines). Save the result in a floppy disk and name it **yourname.prt**.

Part Name: Bracket  
Material: Steel Alloy  
Unit: millimeter





## ES 100 Introduction to Engineering Design Homework 5

**Submit your disk and all prints in a folder.**

1. Read Lesson 7 in the Textbook and practice it. Submit a print of your result.
2. Use what you learned in the class to produce .drw file to show orthographic views of the product you made in Lesson 7. Follow the rules what we learned in Engineering Graphics. Submit a print of your result.
3. Montgomery College Bookstore is seeking for the design of commemorate toy car with size not over 8 x 6 x 6 inches (L x W x H). Use MC logo on the bottom of the car (logo will be provided).

Grade: 80 pts: basic car design (at least 10 features)

20 pts: creative and complete design

10 pts: best design of the class

Example: (80 pts)

