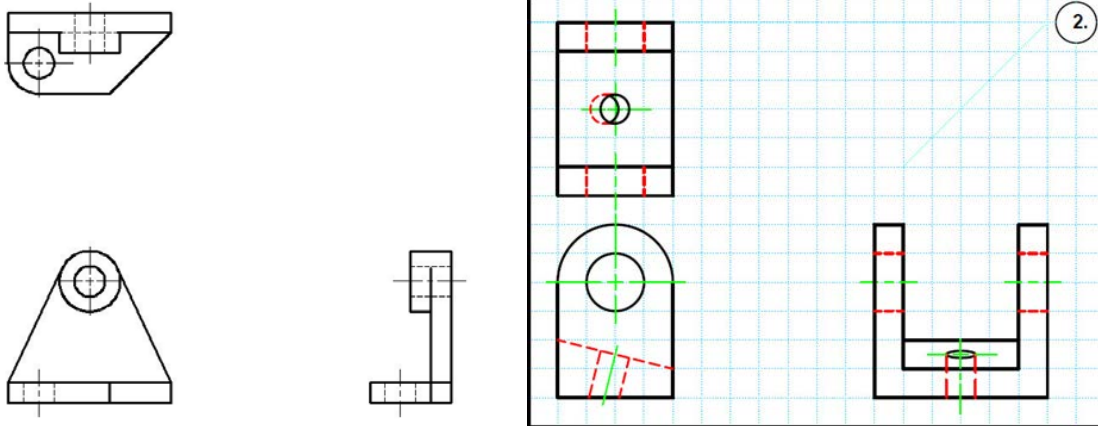


Sample of Practice Problems for the topics to be covered in EGR 111

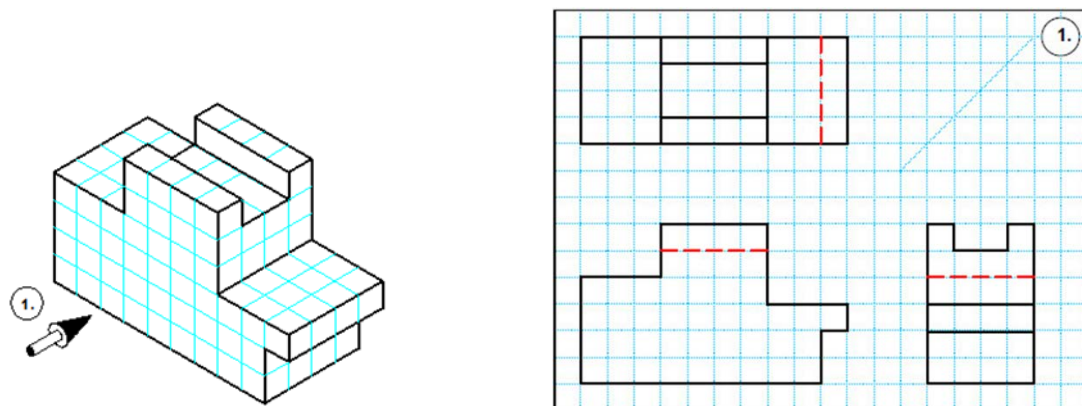
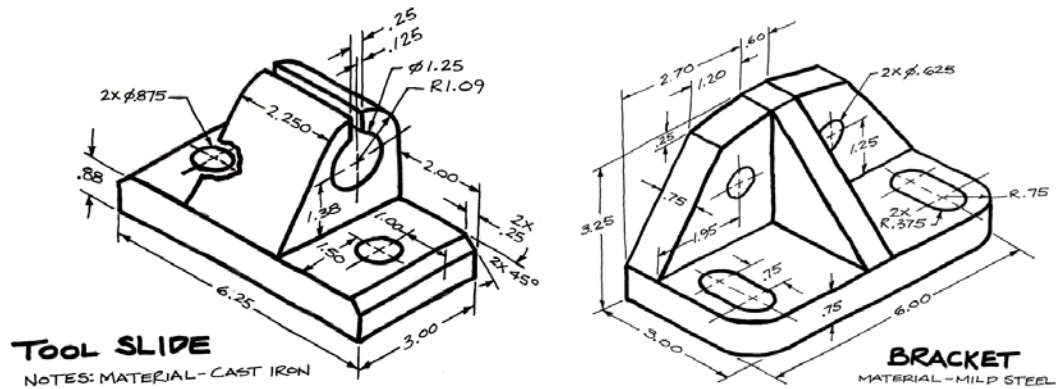
Pictorial Sketching

For the given Orthographic Projections, create the Pictorial Sketch for the Isometric view.

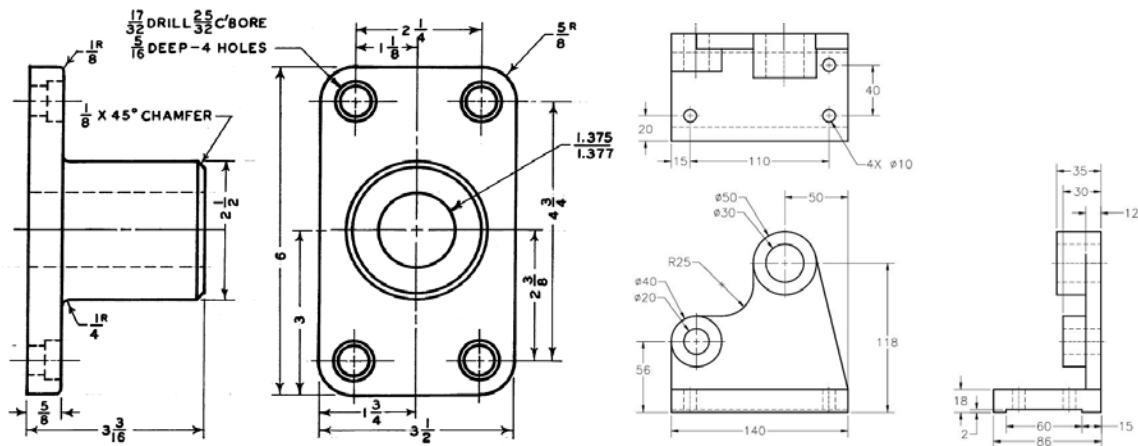


Orthographic Sketching:

For the given Isometric view, create the Orthographic Projections of the object.

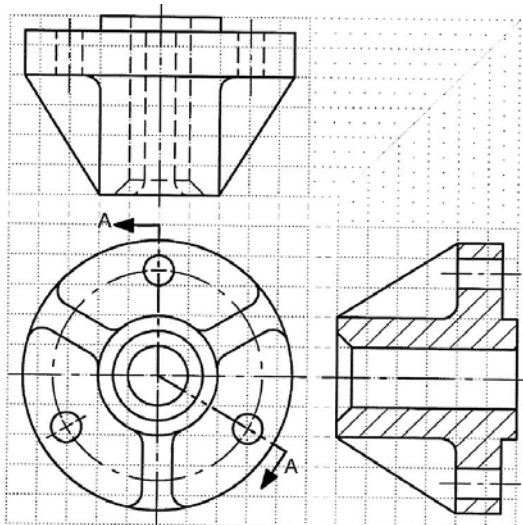
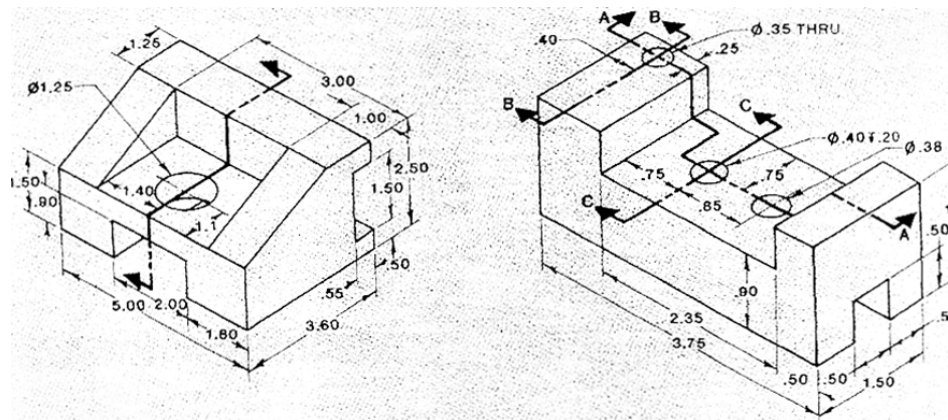


Dimensioning:



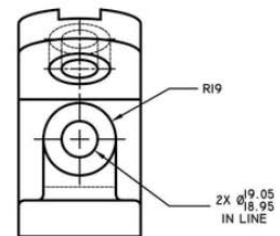
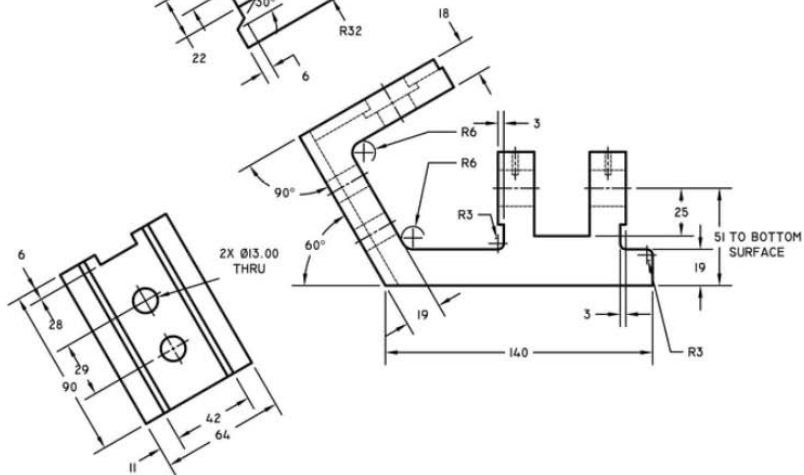
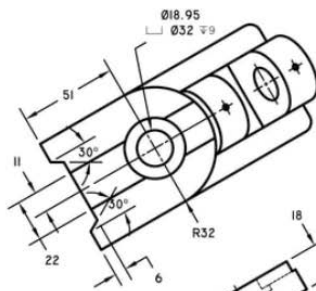
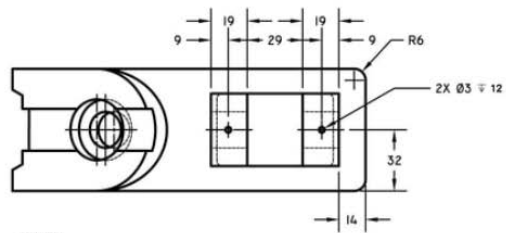
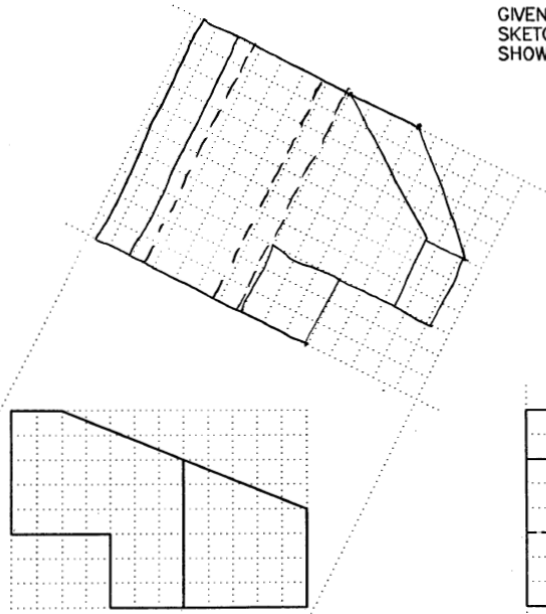
Section Views:

Create/sketch the section views as instructed for the following objects:



Auxiliary Views:

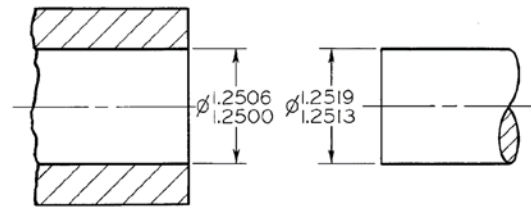
GIVEN: COMPLETE FRONT AND SIDE VIEWS.
SKETCH AUXILIARY VIEW.
SHOW ALL VISIBLE AND HIDDEN LINES.



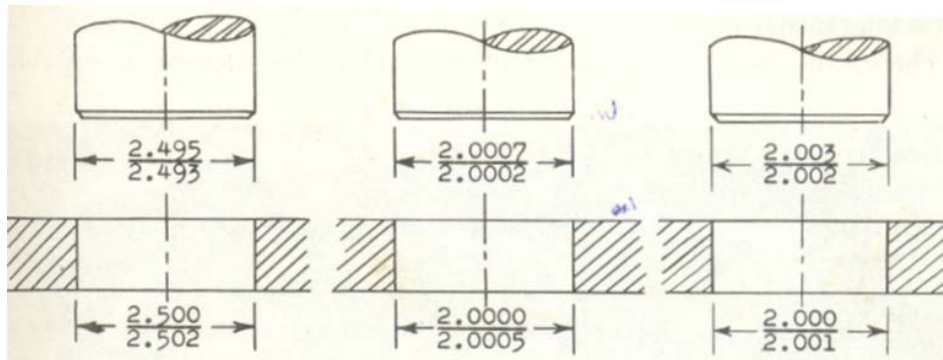
Fits:

Given the dimensions as shown in the below figure, determine:

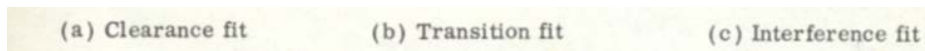
- the tolerance of the hole
- the tolerance of the shaft
- allowance
- maximum clearance
- Define what fit is the assembly and explain why.



Determine the type of fit in the following example:

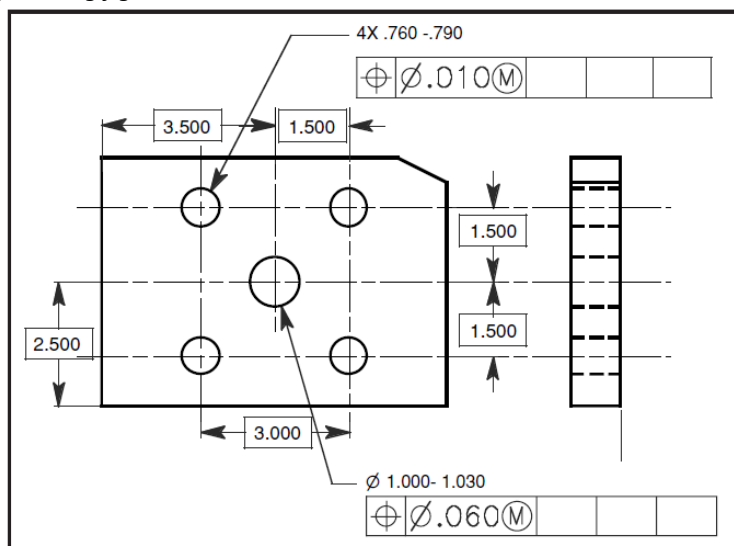


Answer:



Tolerances:

Complete the feature control frames with datums and material condition symbols to reflect the drawing in the following figure:



Specify the MMC and LMC clearance hole sizes for the 1/2 hex head bolts.

2X Ø .500-20 UNF-2B

⊕	Ø.060	Ⓜ	A	B	C
---	-------	---	---	---	---

2X Ø .500-20 UNF-2B

⊕	Ø.060	Ⓜ	A	B	C
---	-------	---	---	---	---

2X Ø .500-20 UNF-2B

⊕	Ø.060	Ⓜ	A	B	C
---	-------	---	---	---	---

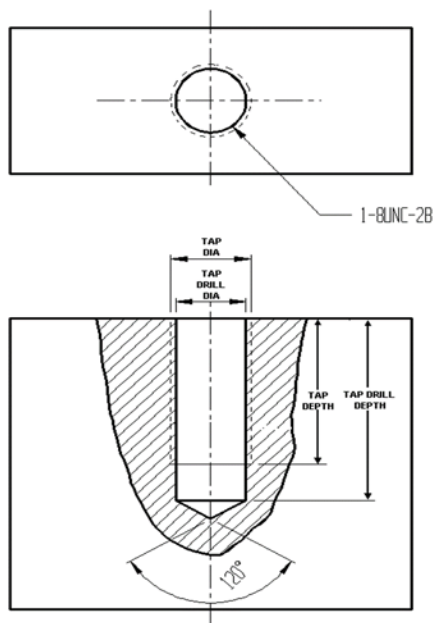
⊕	Ø.020	Ⓜ	A	B	C
---	-------	---	---	---	---

⊕	Ø.010	Ⓜ	A	B	C
---	-------	---	---	---	---

⊕	Ø.000	Ⓜ	A	B	C
---	-------	---	---	---	---

Threaded Fasteners:

Determine the minimum tap drill depth for a 1/4-20 tapped hole



Identify the different components of the following Unified National thread note.

1/4 – 20 UNC – 2A – RH

Identify the different components of the following metric thread notes.

M10 x 1.5 – 4h6h – RH