

DESENHO TÉCNICO PARA QUÍMICOS (SEM 0574)

Notas de Aulas v.2020

Aula 03 –

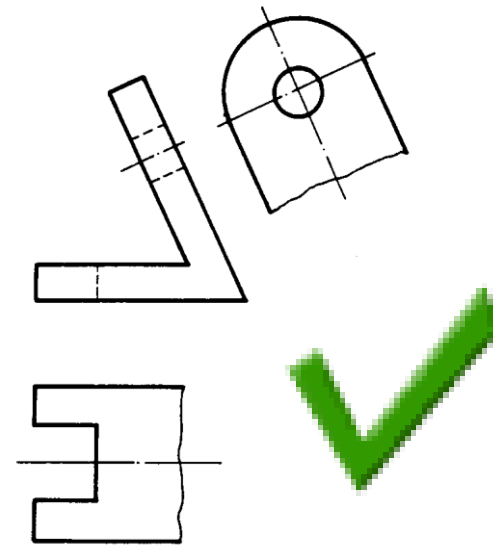
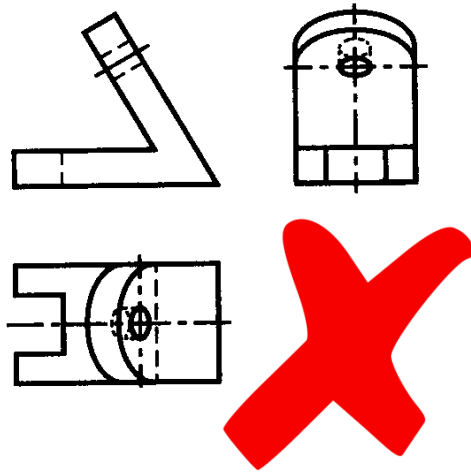
- 1 Vistas auxiliares,*
- 2 Projeção de peças com rotação,*
- 3 Vistas especiais,*
- 4 Vistas localizadas*
- 5 Vistas simplificadas.*

Prof. Alessandro Roger
Prof. Jaime Duduch
Profa. Luciana Montanari
Prof. Renato Jasinevicius

1.0 - VISTAS AUXILIARES ou projeção ortogonal especial

1.1 O que são VISTAS AUXILIARES?

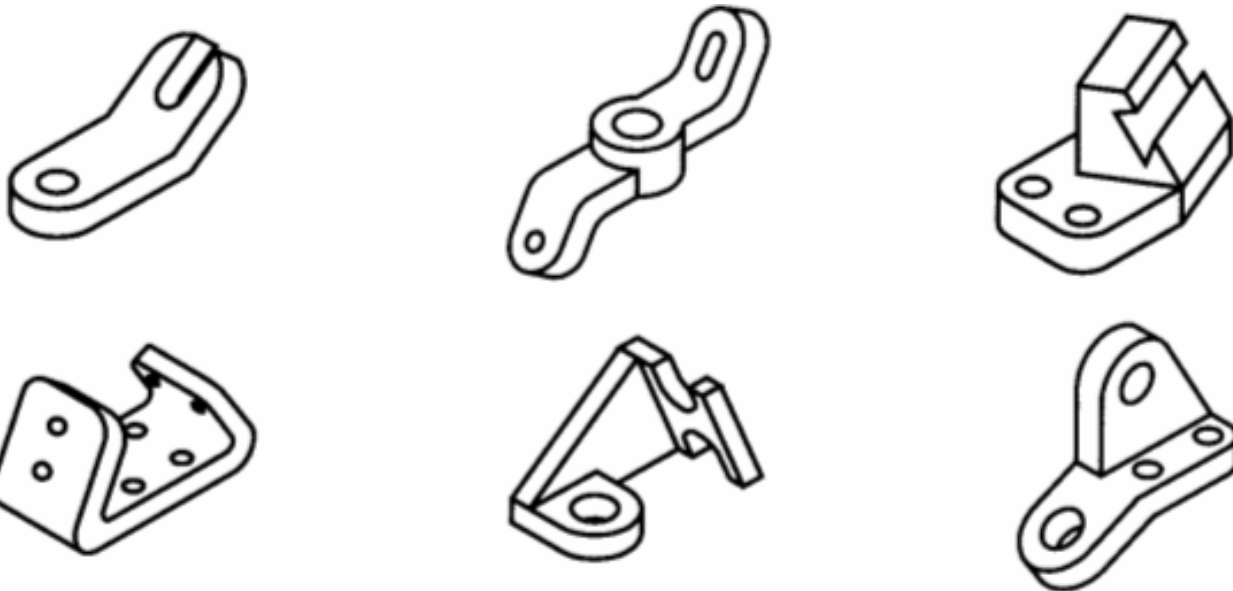
São vistas que possibilitam mostrar faces oblíquas de peças de maneira que não fiquem distorcidas.



Imagens: Leitura e Interpretação de Desenho Técnico Mecânico. Mecânica. Telecurso 2000.

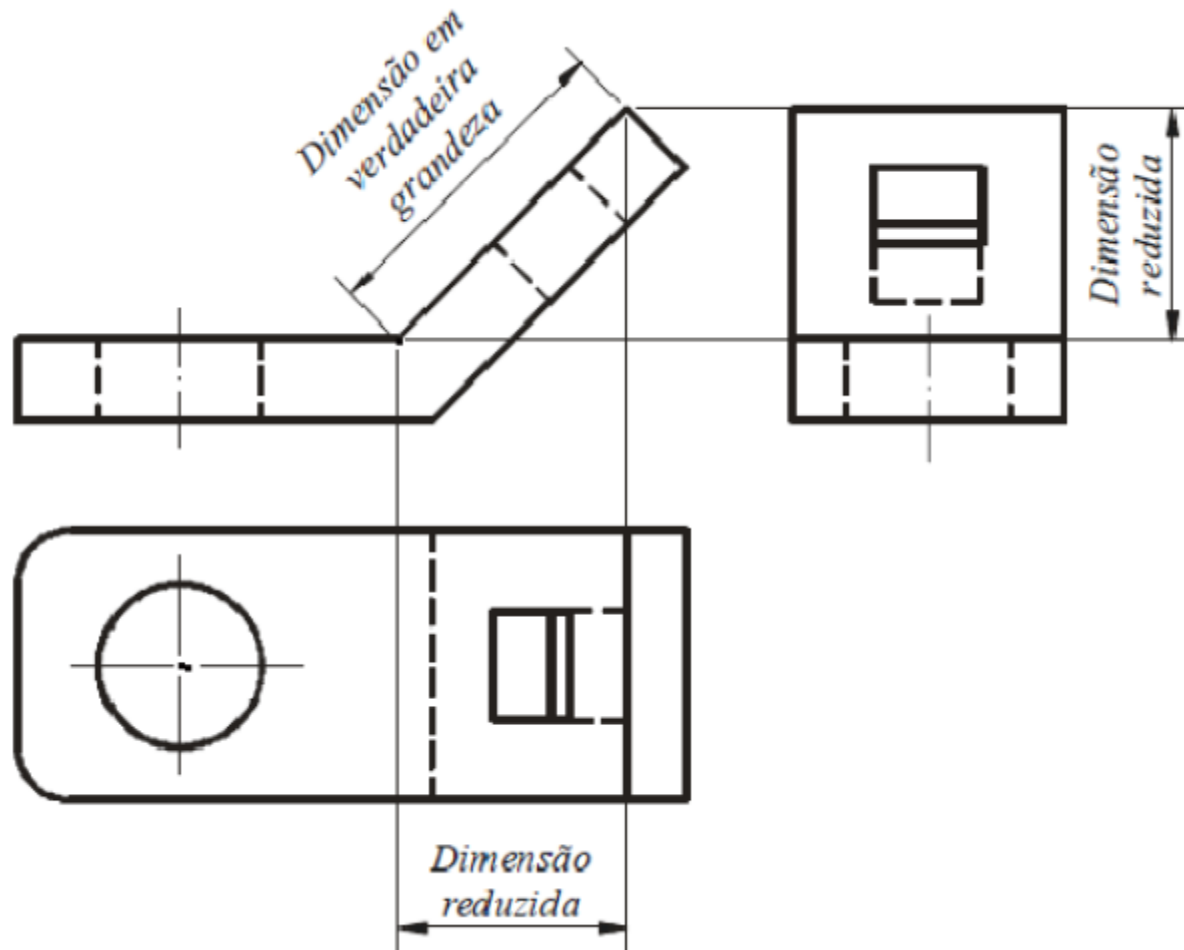
1.2 Onde usar as VISTAS AUXILIARES?

É necessário usar as VISTAS AUXILIARES em peças cujas projeções ortogonais ficam distorcidas devido a uma (ou mais) face(s) oblíqua(s) ou onde se deseja representar uma vista em verdadeira grandeza (VG).



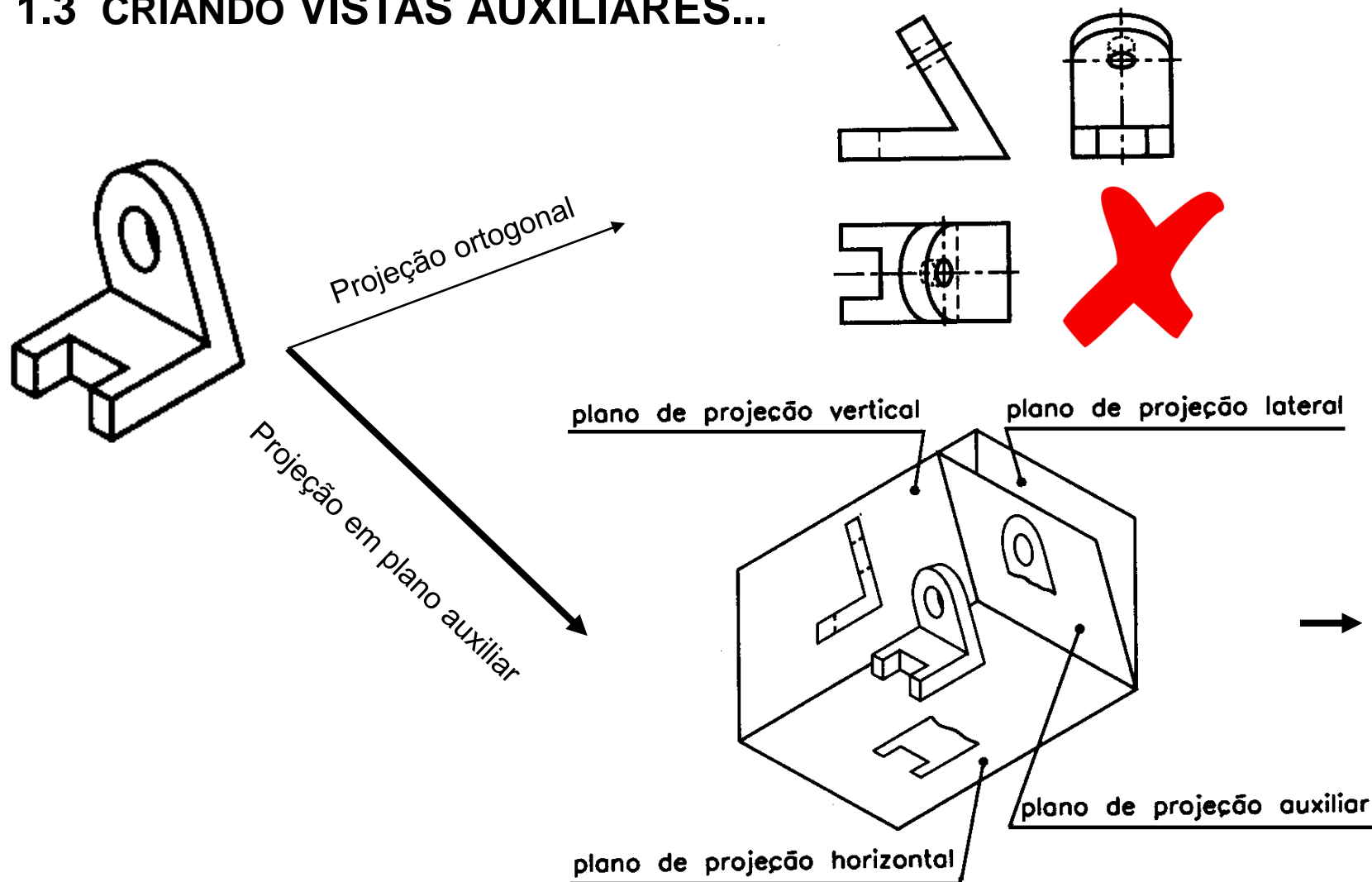
Imagens: Leitura e Interpretação de Desenho Técnico Mecânico. Mecânica. Telecurso 2000.

1.2 Onde usar as VISTAS AUXILIARES? - EXEMPLO

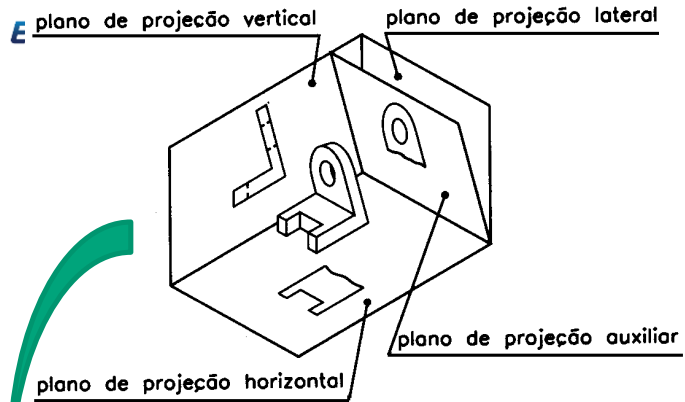


Imagens: Leitura e Interpretação de Desenho Técnico Mecânico. Mecânica. Telecurso 2000.

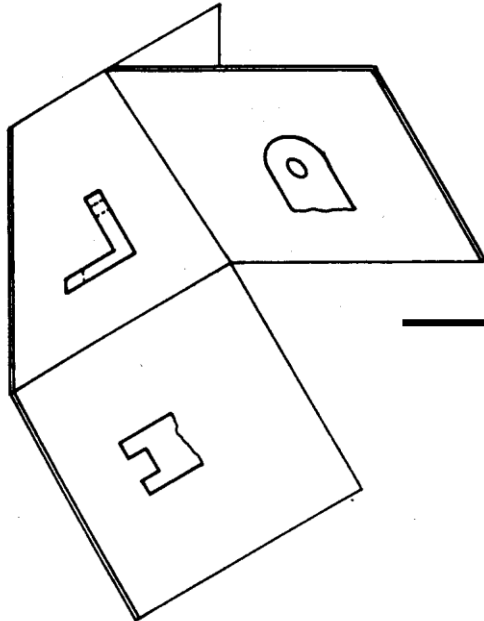
1.3 CRIANDO VISTAS AUXILIARES...



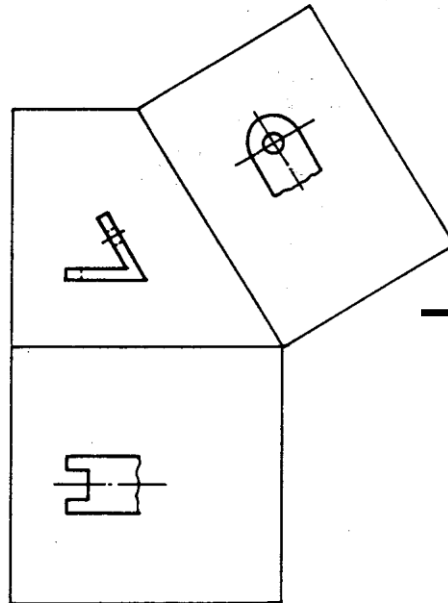
Imagens: Leitura e Interpretação de Desenho Técnico Mecânico. Mecânica. Telecurso 2000.



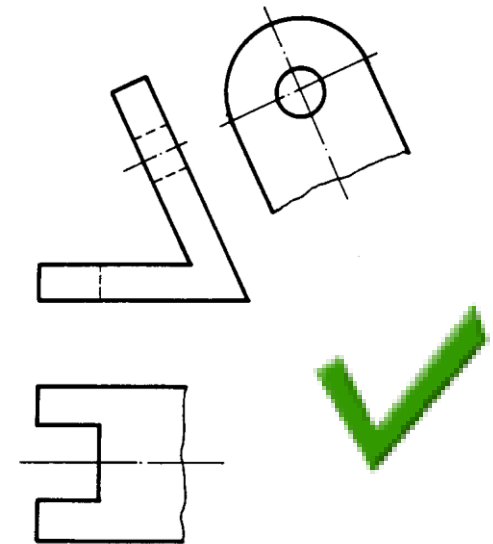
...REBATIMENTO DO PLANO AUXILIAR...



Planos



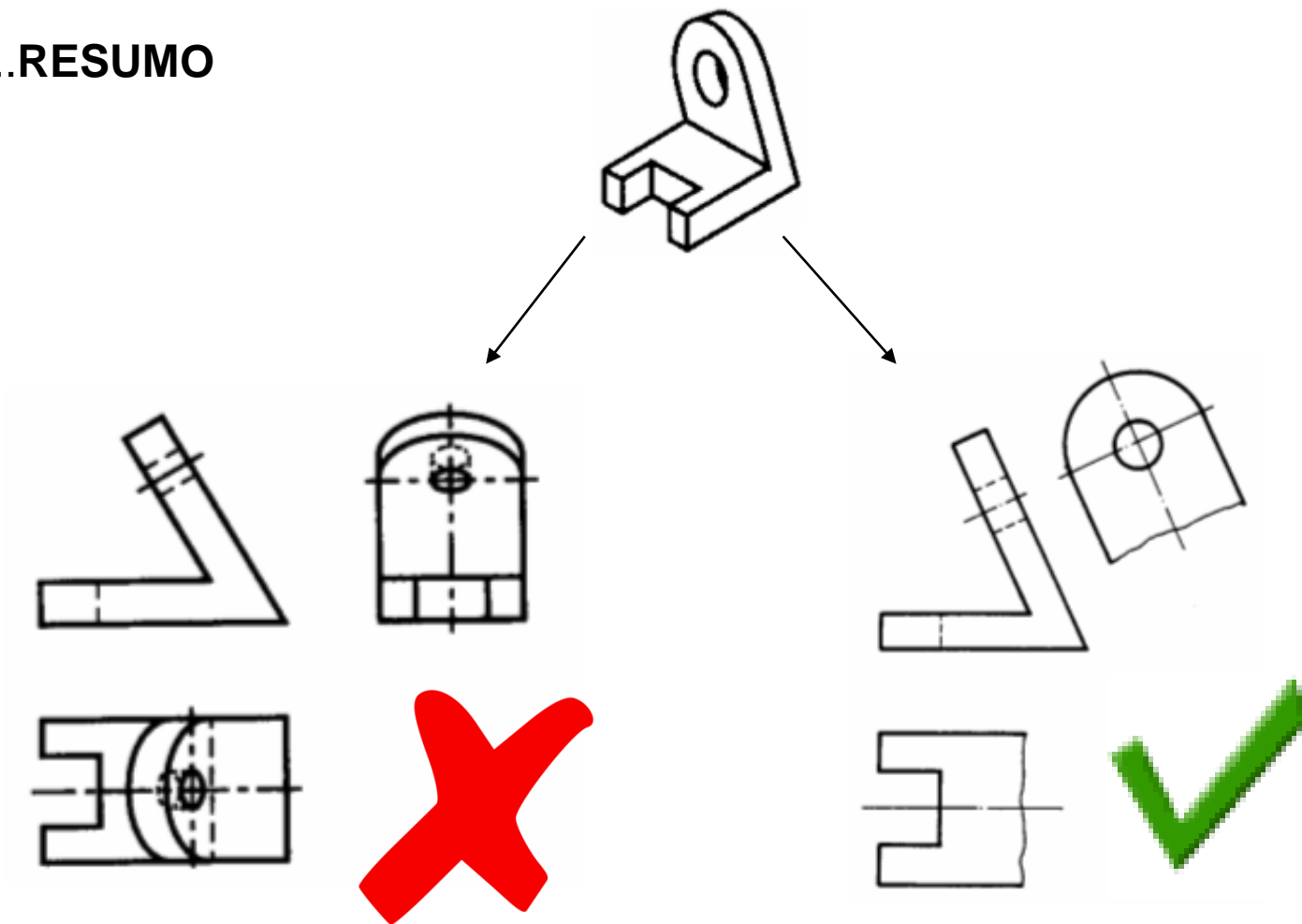
Rebatimento



Resultado

Imagens: Leitura e Interpretação de Desenho Técnico Mecânico. Mecânica. Telecurso 2000.

...RESUMO

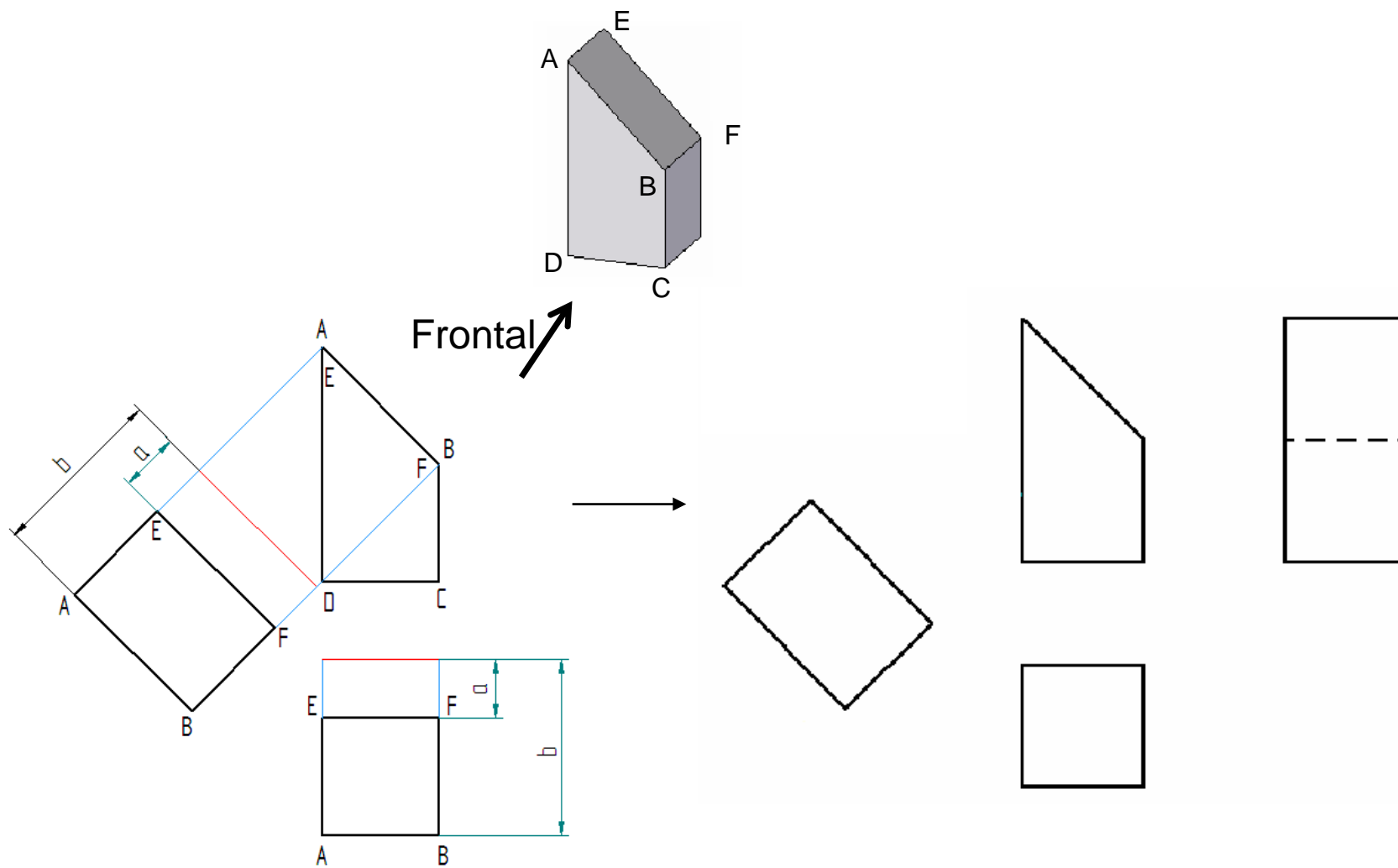


Projeção – plano ortogonal

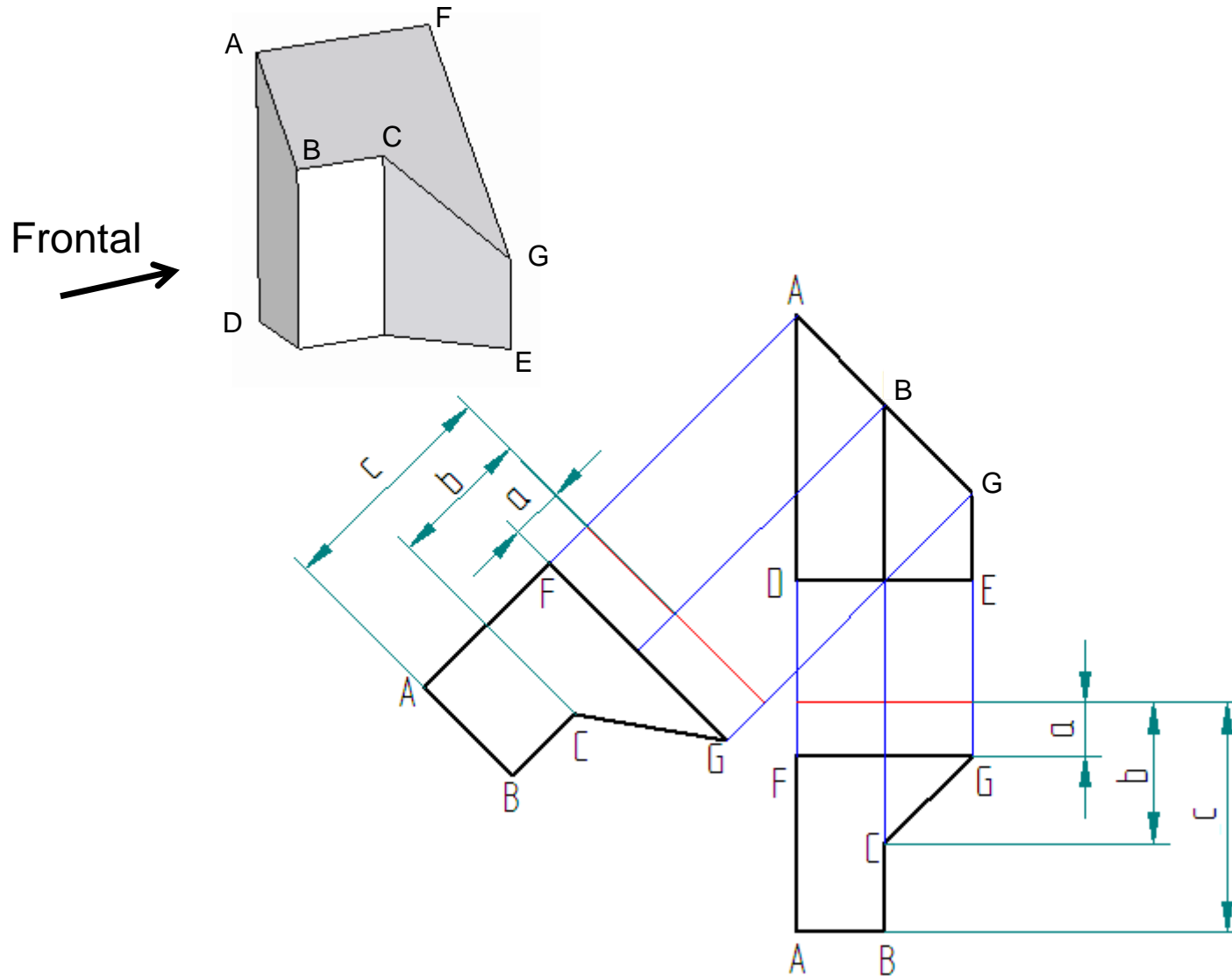
Projeção usando plano auxiliar

Imagens: Leitura e Interpretação de Desenho Técnico Mecânico. Mecânica. Telecurso 2000.

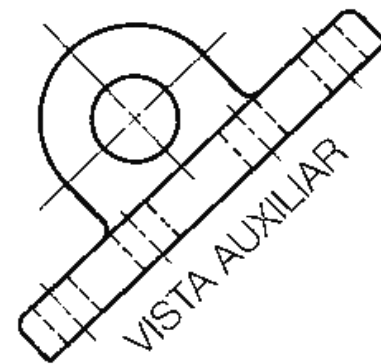
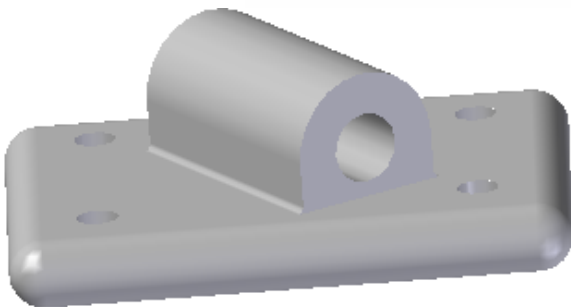
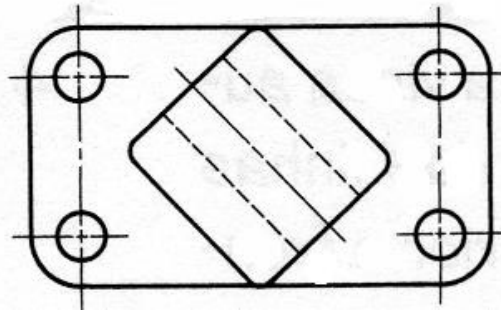
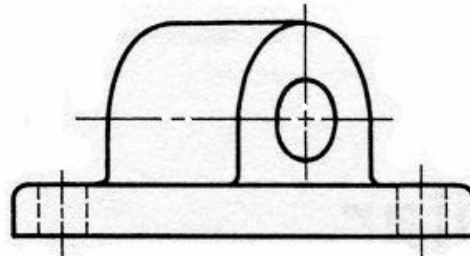
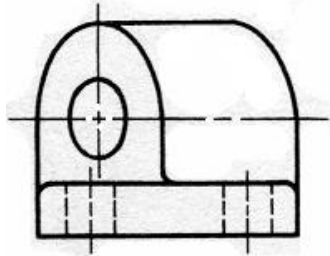
1.4 Como desenhar uma VISTA AUXILIAR?



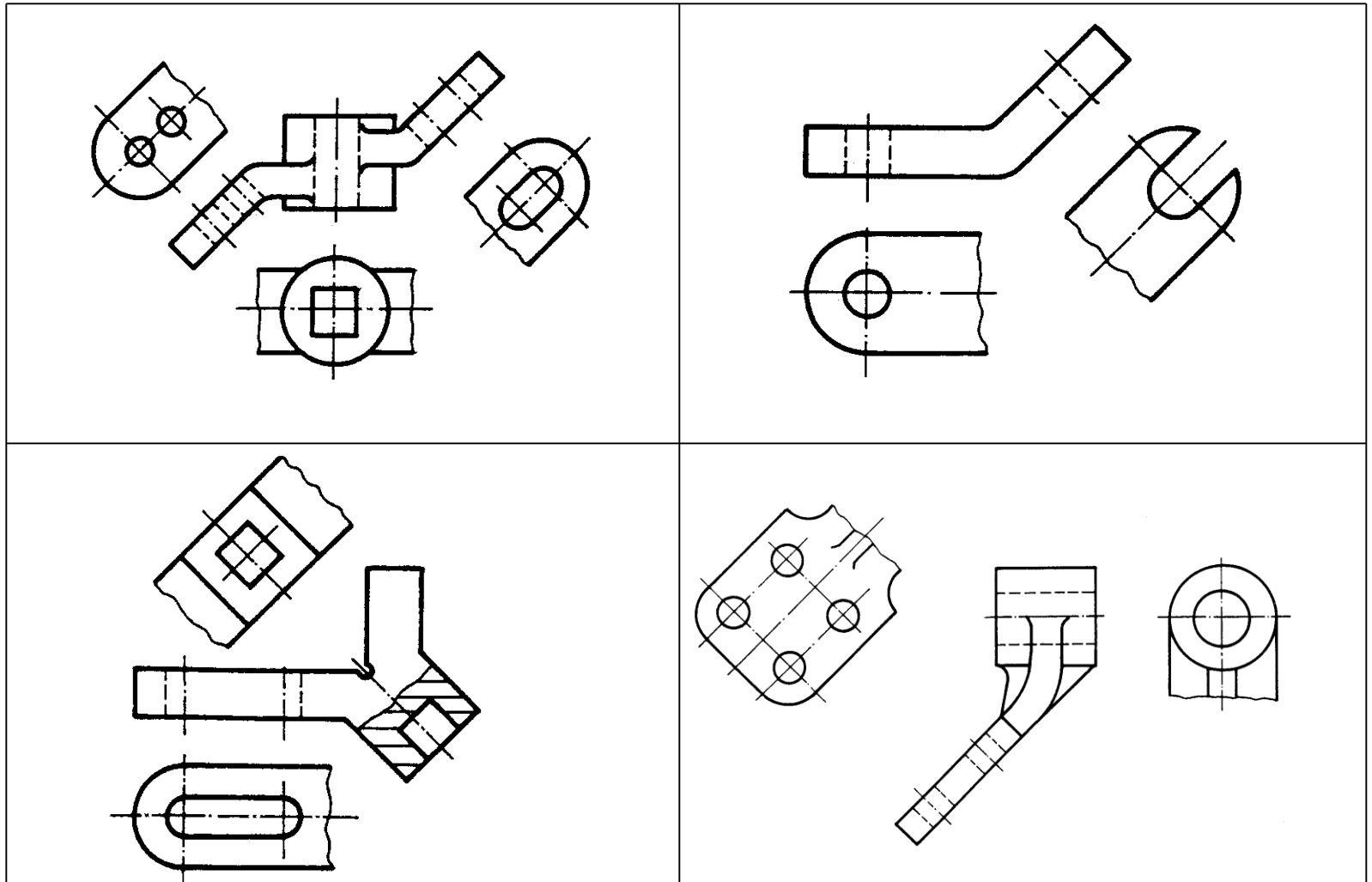
Exemplo



Exemplo



Exemplos

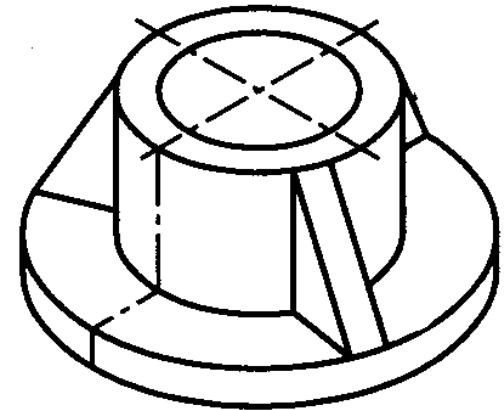
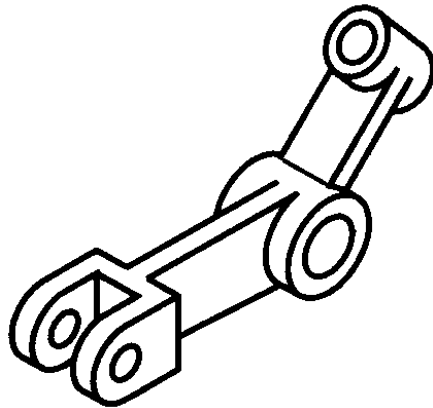


Fonte: Apostila Desenho Mecânico. Desenho com instrumentos. Convênio SENAI/São Paulo

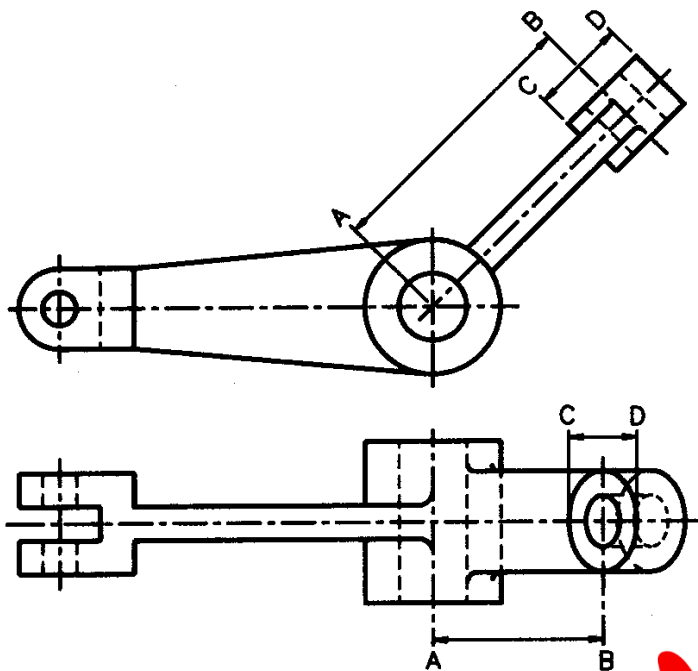
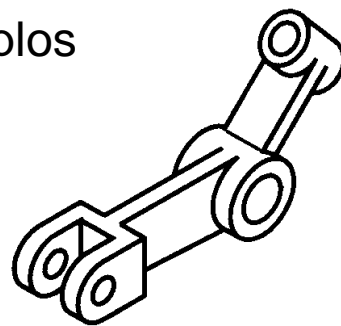
2.0 – Projeção de peças com rotação

2.1 O que é projetar uma vista com rotação?

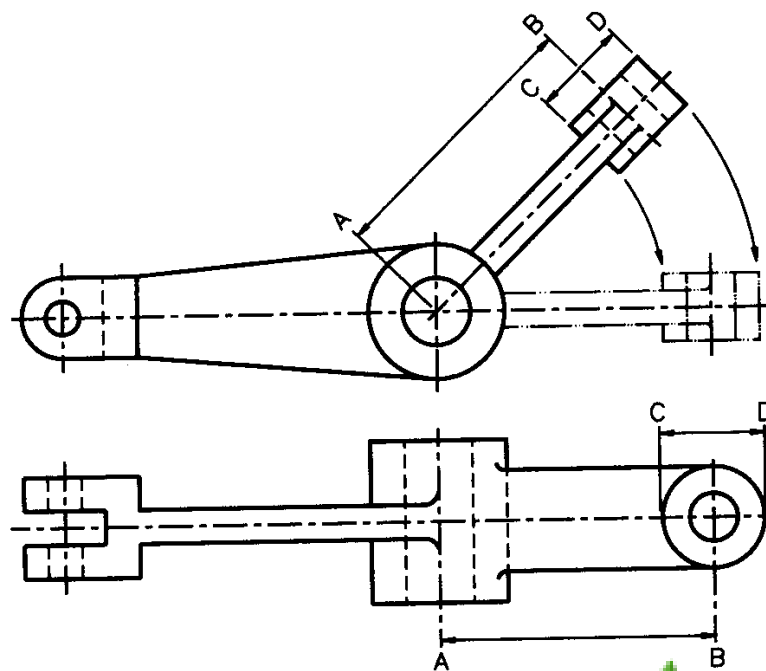
É rotacionar virtualmente um ou mais elementos de uma peça a fim de que as projeções ortogonais não fiquem distorcidas, sendo necessário existir um eixo de rotação na peça.



2.2 Projeção com rotação: exemplos



Normal: *inadequado*

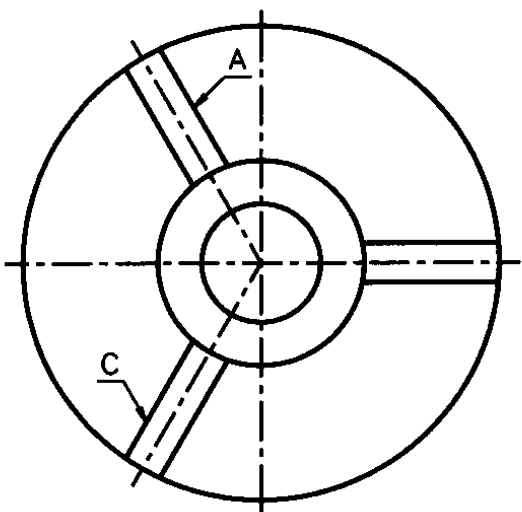
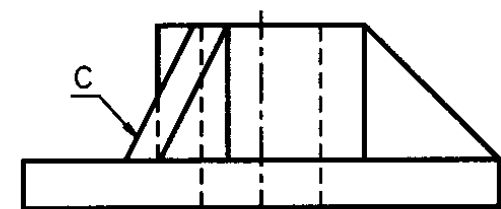
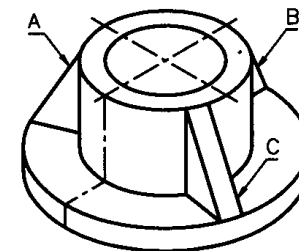


com Rotação

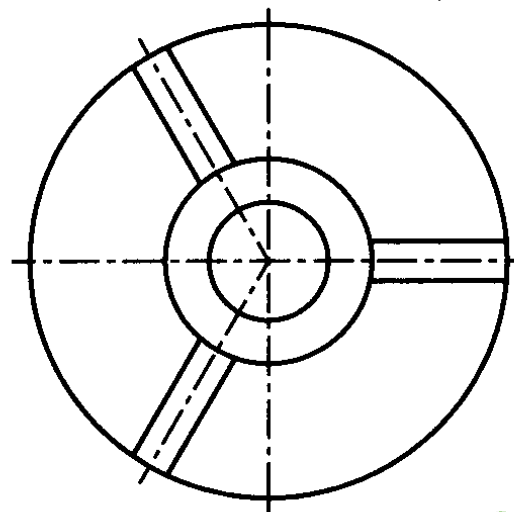
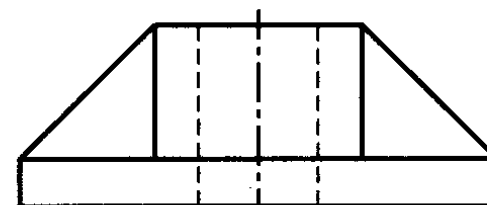


Fonte: Apostila Desenho Mecânico. Desenho com instrumentos. Convênio SENAI/São Paulo

Projeção com rotação: exemplo



Normal: *inadequado*



com Rotação

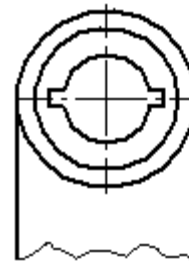
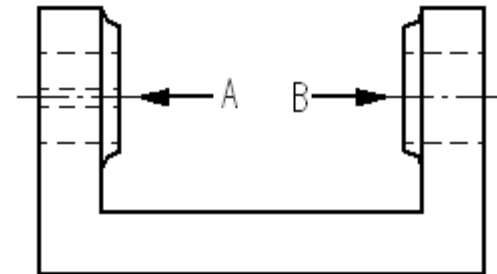
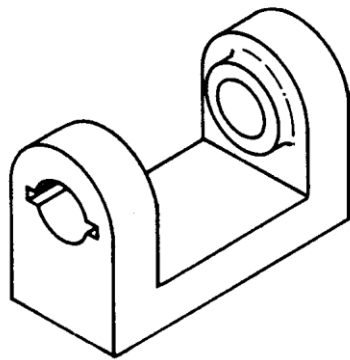


Fonte: Apostila Desenho Mecânico. Desenho com instrumentos. Convênio SENAI/São Paulo

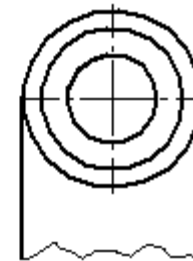
3.0 – Vistas Especiais

3.1 O que são VISTAS ESPECIAIS?

São projeções com posição do observador indicada por setas e letras quando não representadas na posição normal de rebatimento.

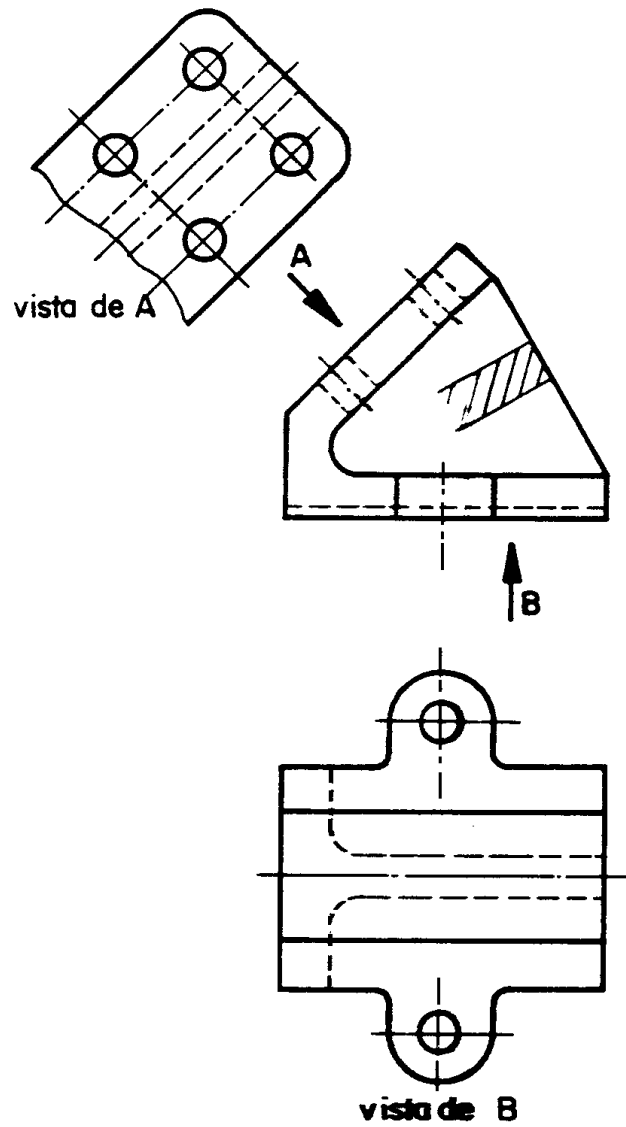
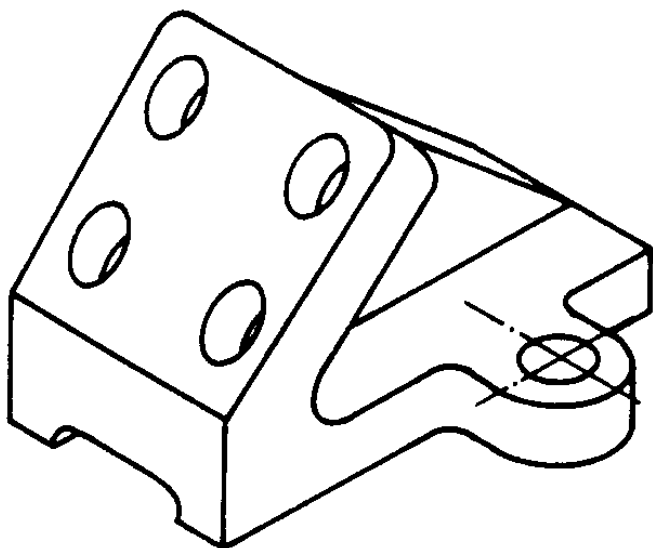


vista de A



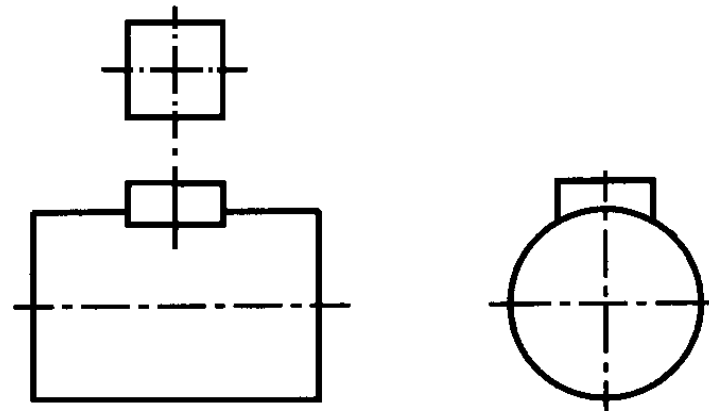
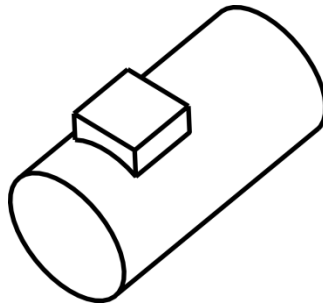
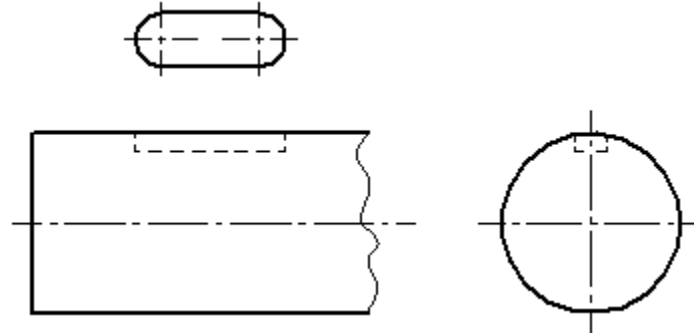
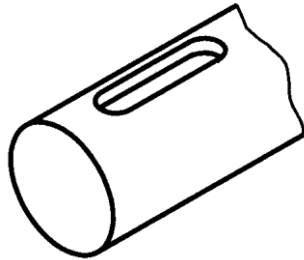
vista de B

3.2 Exemplos



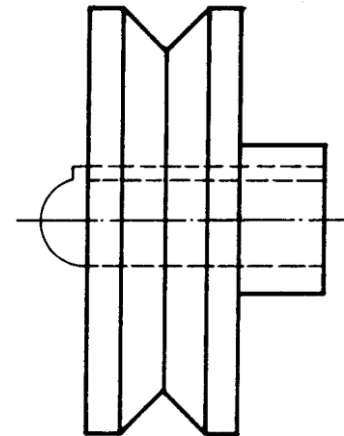
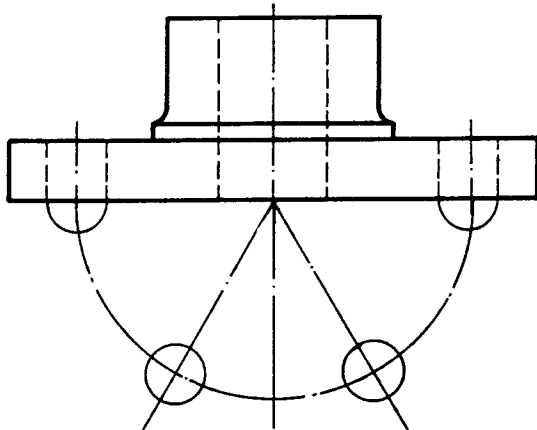
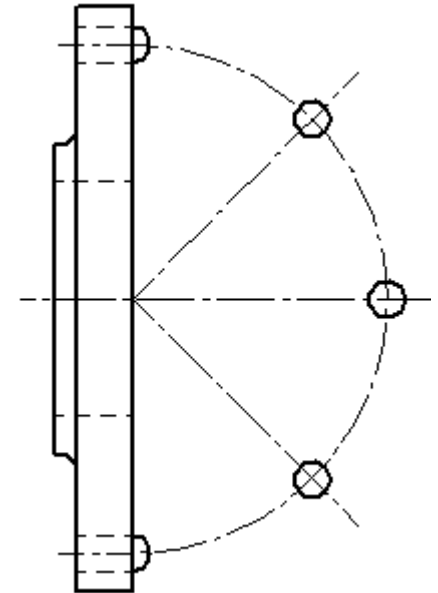
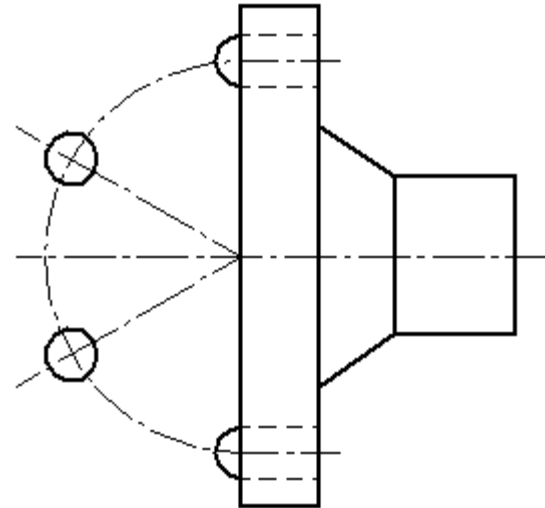
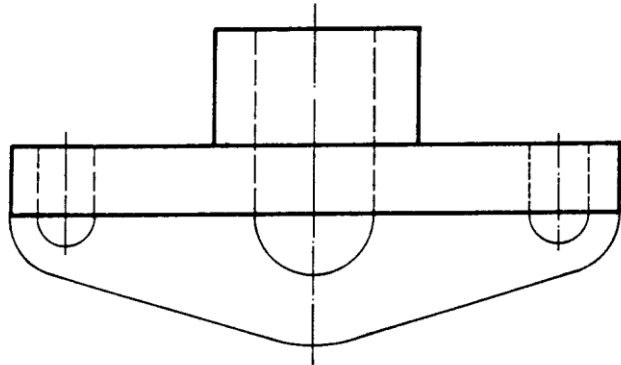
Fonte: Apostila Desenho Mecânico. Desenho com instrumentos. Convênio SENAI/São Paulo

4.0 Vistas Localizadas



5.0 Vistas Simplificadas

Utilizadas somente quando não acarretar dúvidas.

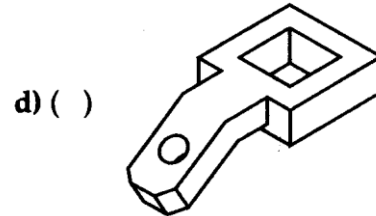
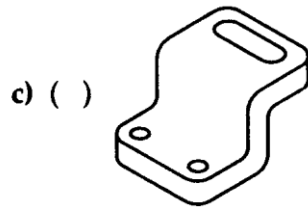
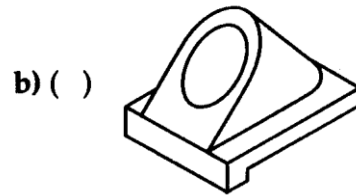
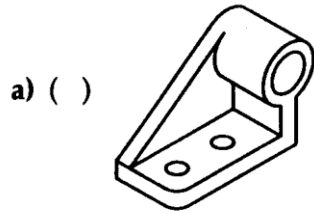


Exercício 20

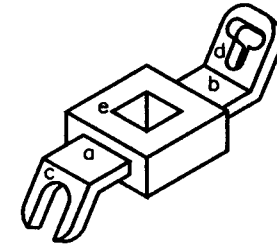
Nome: _____

Nº _____ Turma _____

a - identifique as peças com faces oblíquas



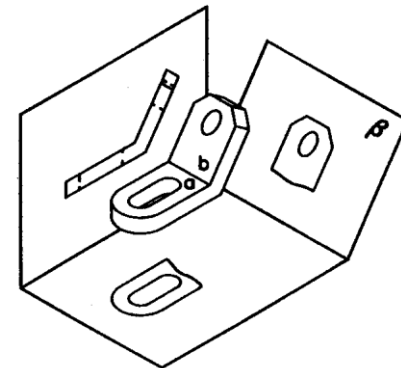
b - identifique as faces oblíquas



d - identifique a face oblíqua;
que nome recebe o plano inclinado β .

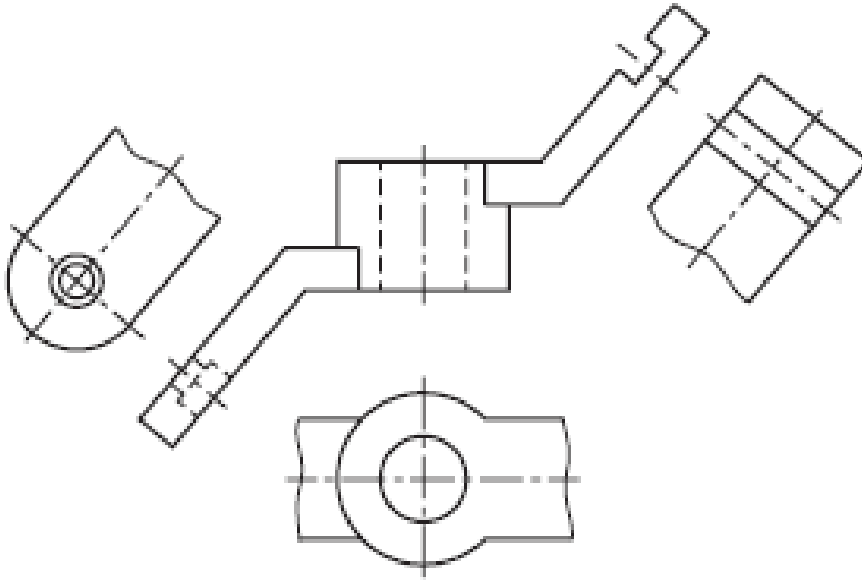
c – Escolha a alternativa que completa a frase corretamente: A projeção ortográfica de peças com faces oblíquas, nos planos: vertical, horizontal e lateral.....

- reproduz a peça em verdadeira grandeza.
- representa as partes oblíquas deformadas.

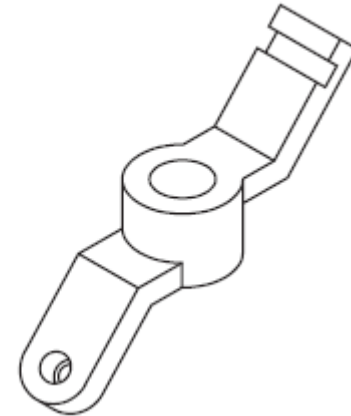


Fonte: Apostila completa sobre desenho técnico. Telecurso 2000.

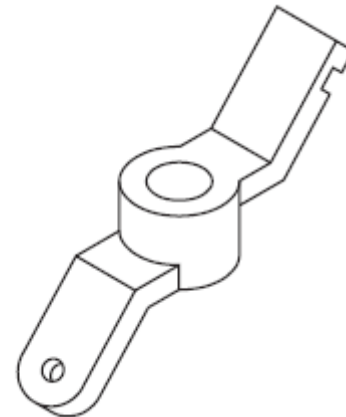
Exercício 21 - A qual peça correspondem as vistas abaixo?



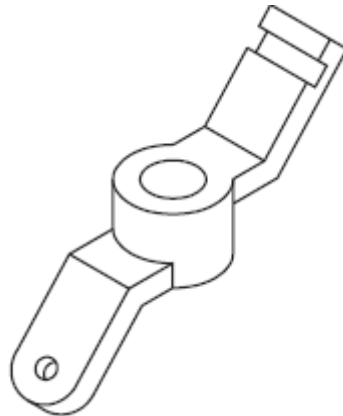
a) ()



b) ()

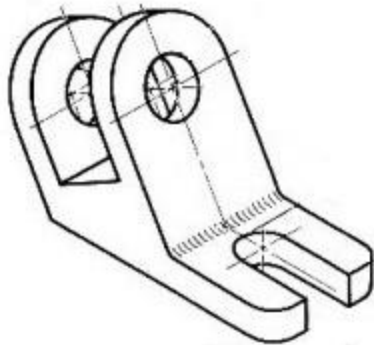
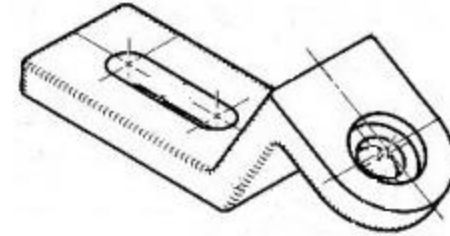
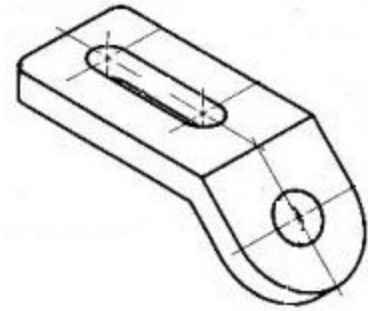


c) ()



Fonte: Apostila completa sobre desenho técnico. Telecurso 2000.

Exercício 22 – Faça o croqui das vistas necessárias, incluindo as auxiliares.

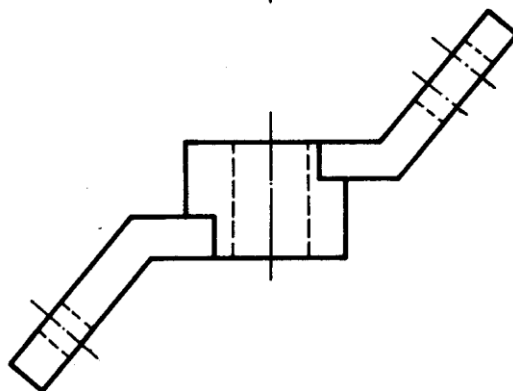
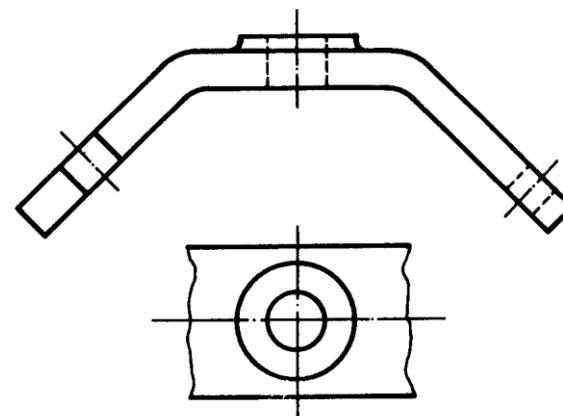
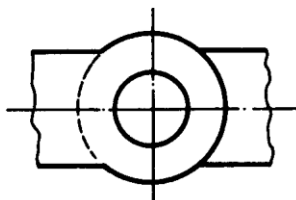
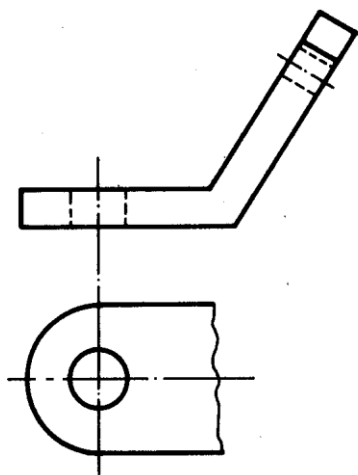


Exercício 23 – Complete as projeções desenhando as vistas auxiliares.

Obs: considerar as extremidades das peças arredondadas.

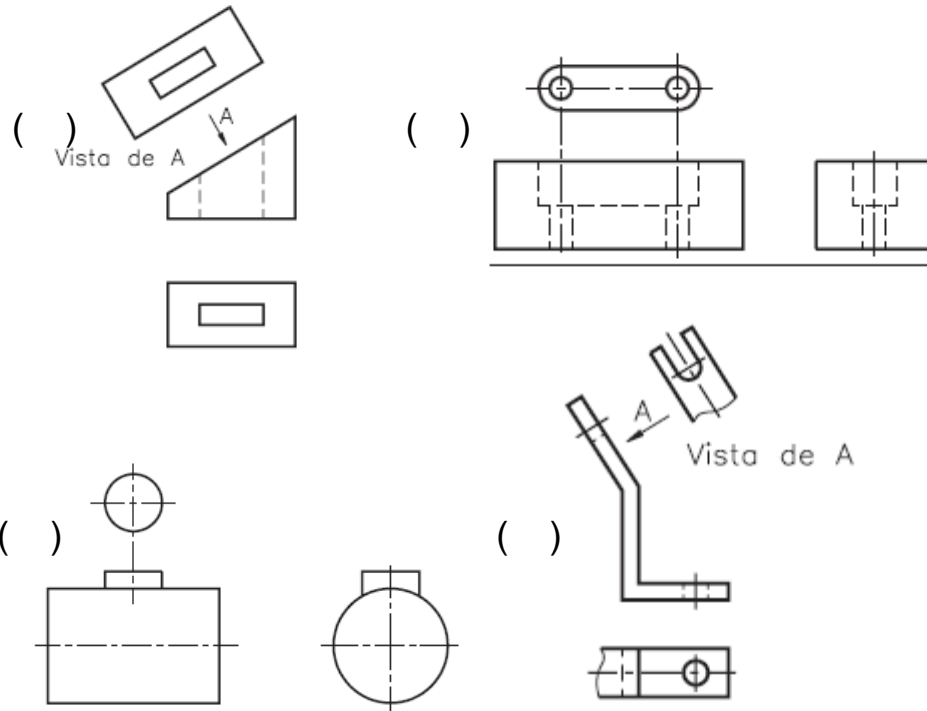
Nome: _____

Nº _____ Turma _____

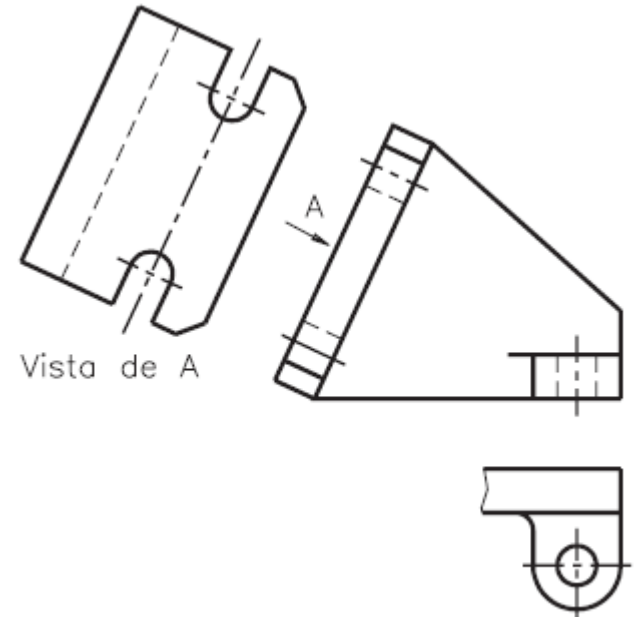


Fonte: Apostila completa sobre desenho técnico. Telecurso 2000.

a) Identifique as peças com vista localizada:

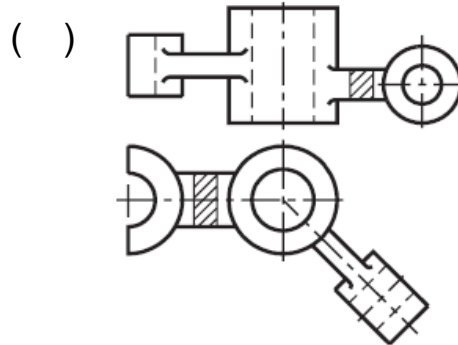
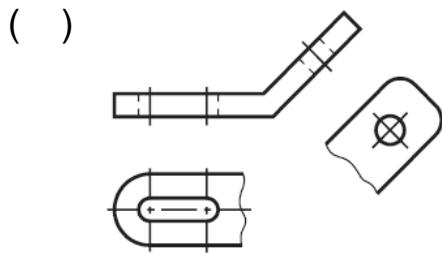
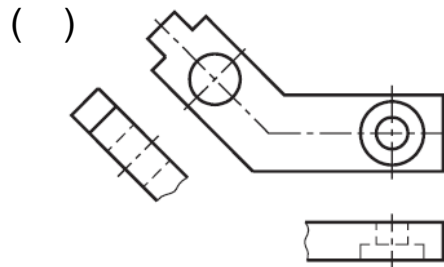
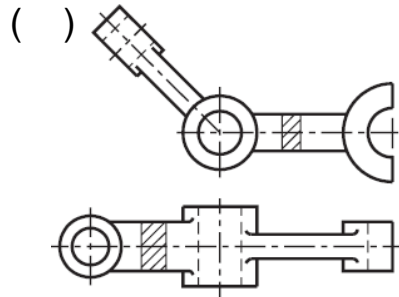


b) Assinale a alternativa que indica as vistas utilizadas:

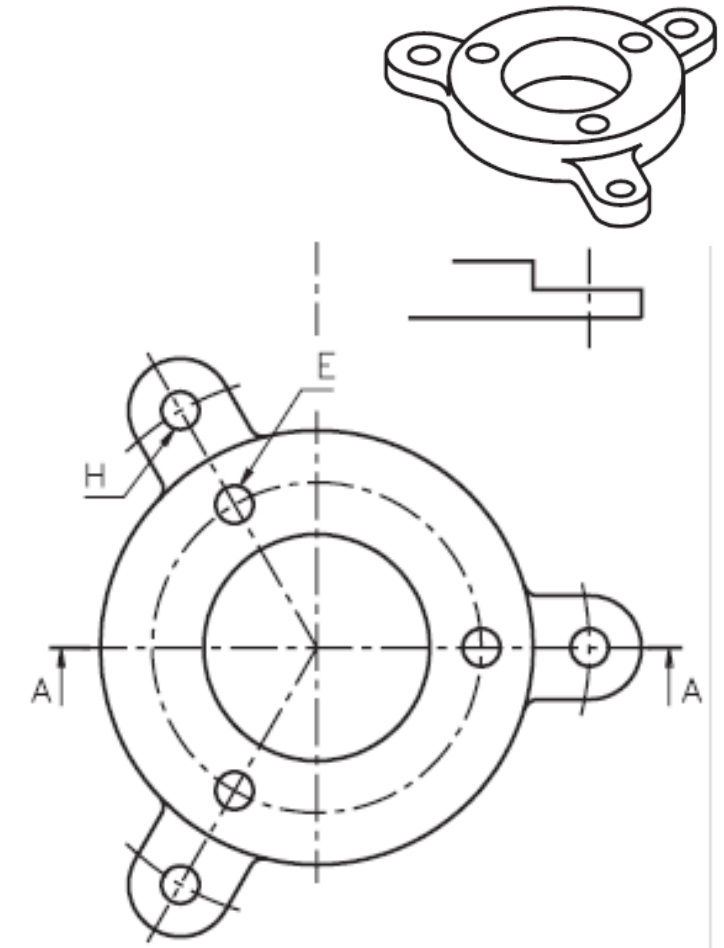


- () Vista frontal, vista superior, vista especial;
- () Vista frontal, vista superior, vista auxiliar;
- () Vista frontal, vista especial, vista especial;
- () Vista frontal, vista especial, vista inclinada

a) Identifique as peças rotacionadas:



b) Complete a projeção:





Exercício 26 – Faça o desenho da vista lateral esquerda e da vista auxiliar da face A.

