



机械制图

习题集

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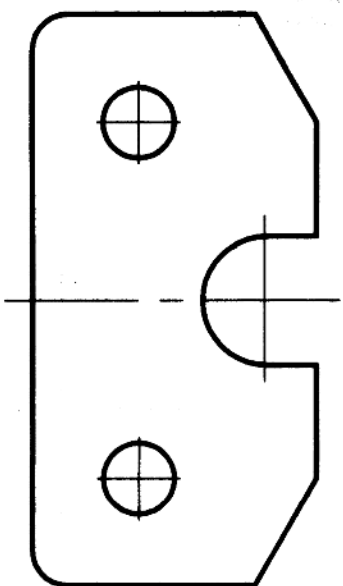
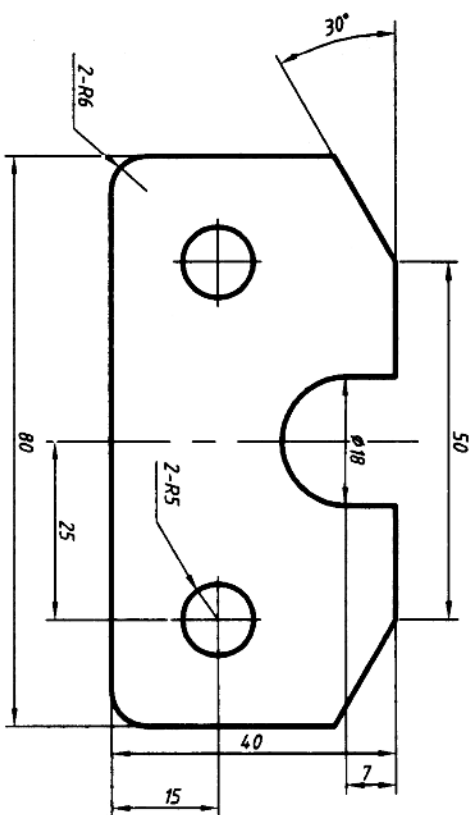


AutoCAD



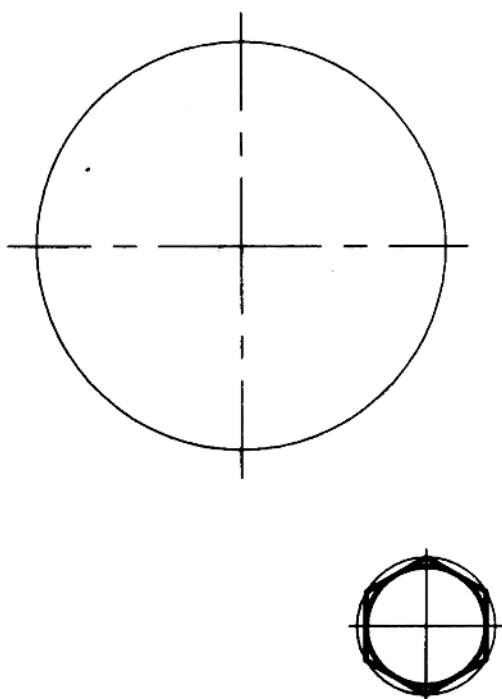
西北大学出版社
NORTHWEST UNIVERSITY PRESS

1-2 改正错误的尺寸注法，并按正确的尺寸注法标注在下图中

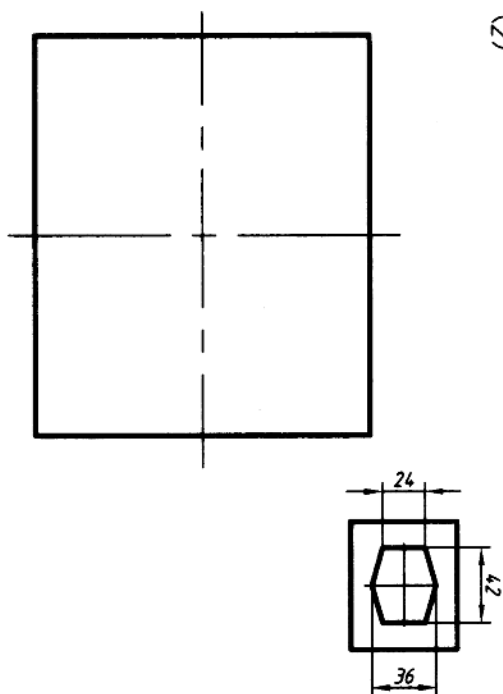


1-3 基本图形练习，根据小图绘制大图

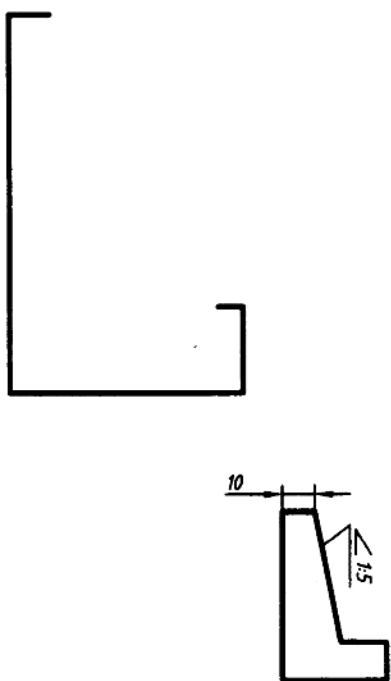
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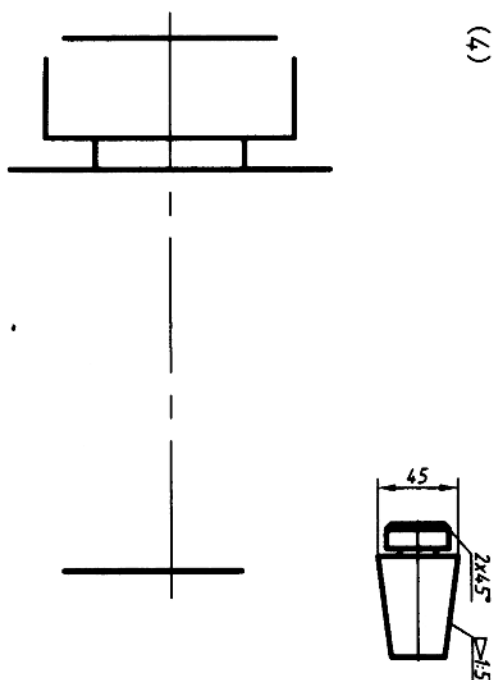
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(3)

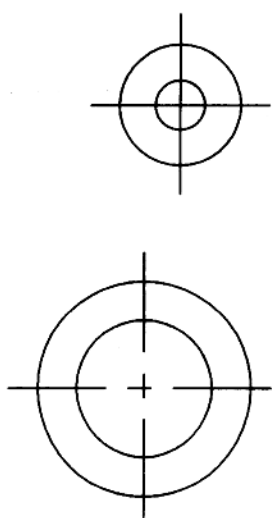
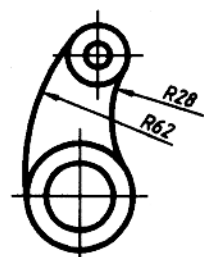


(4)

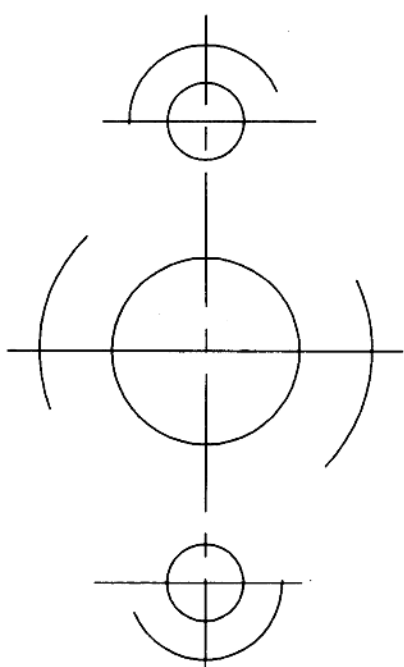
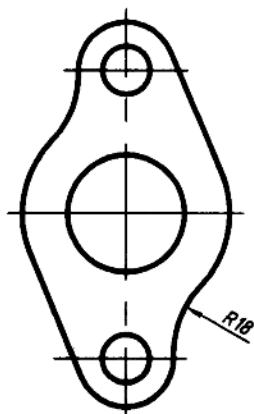


1-4 完成连接图形, 并标出连接圆心点和切点 (比例 1: 1)

(1)



(2)



平面图形绘制要求

(一) 作业目的

- 1) 熟悉平面图形的绘制过程及尺寸标注方法。
- 2) 掌握线型规格及训练线段连接技巧。

(二) 内容要求

- 1) 按教师指定的题号绘制平面图形。
- 2) 用A4图纸, 根据图形大小决定绘图比例和图形横放或竖放, 标注尺寸。

(三) 绘图步骤

- 1) 分析图形, 分析图中的尺寸作用及线段性质, 从而决定作图步骤。

2) 画底稿

(1) 画图框和标题栏:

- (2) 画出图形的基准线, 对称线及圆的中心线等;

- (3) 按已知线段, 中间线段的顺序画出图形。

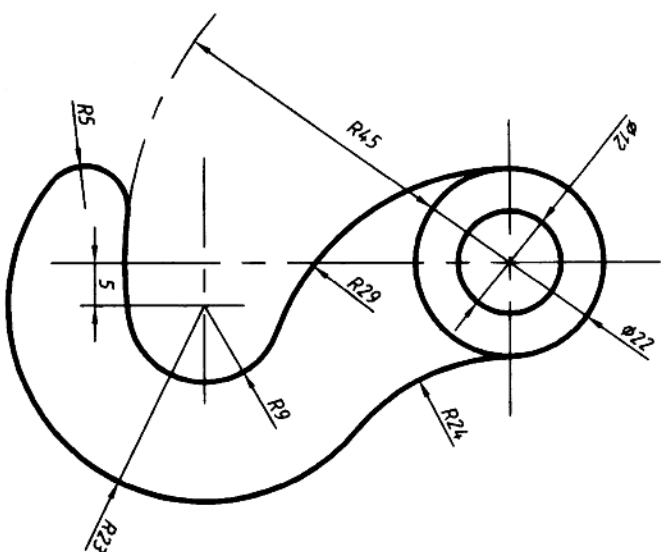
- (4) 画出尺寸界限, 尺寸线。

3) 检查底稿

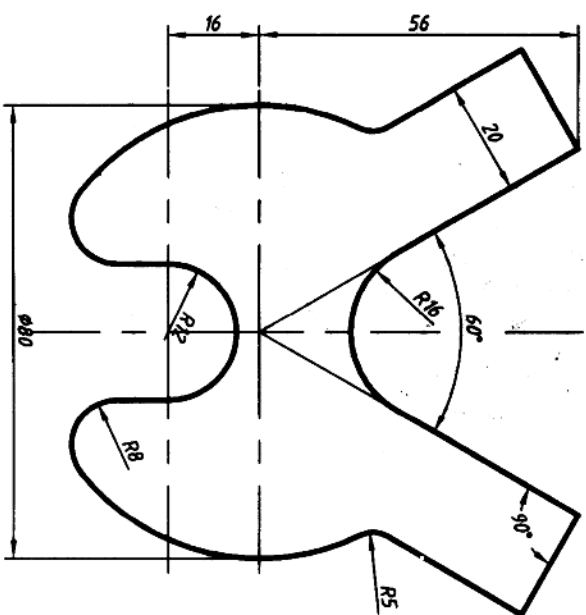
4) 铅笔加深图形

- 5) 画箭头, 标注尺寸, 填写标题栏。

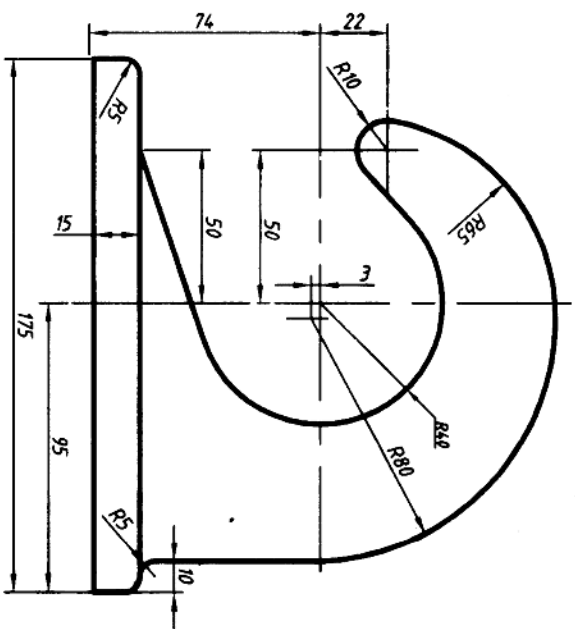
- 6) 校对及修饰图形。



(1)

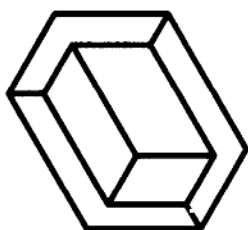
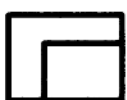
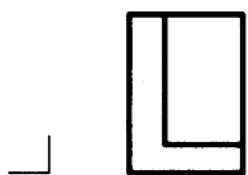


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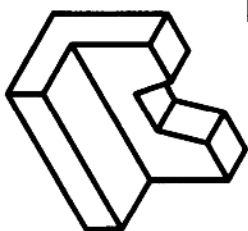
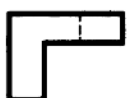


3-1 根据轴测图和两面视图,补画第三视图

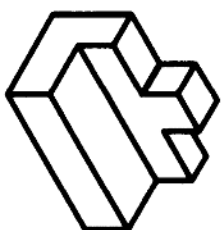
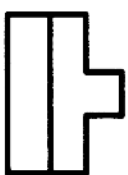
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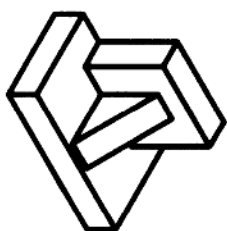
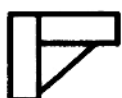
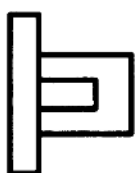
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(3)

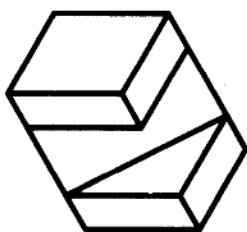


(4)

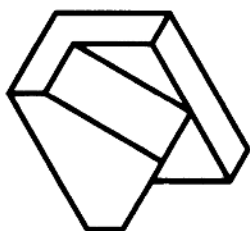


3-2 根据立体图画三视图/尺寸直接从立体图中量取)

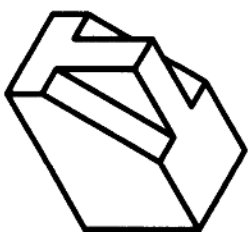
(1)



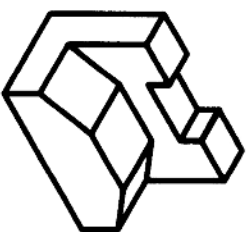
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(3)

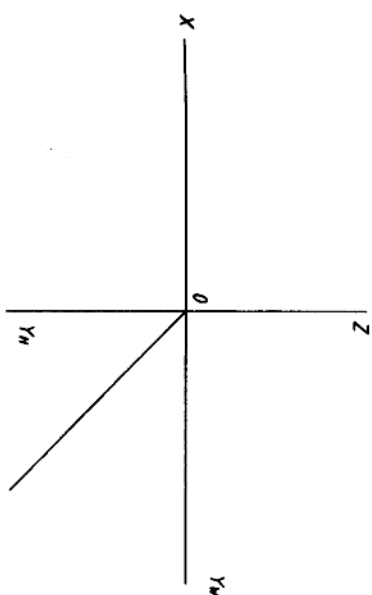


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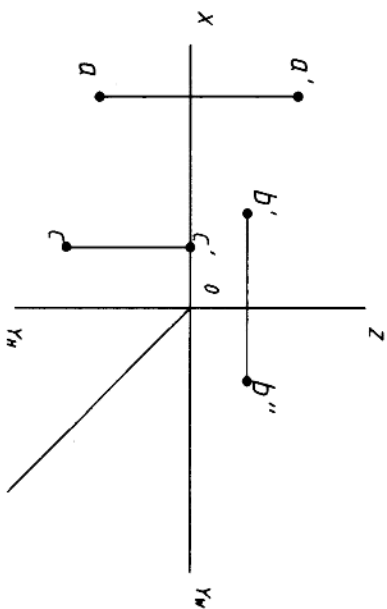


3-3 点的投影练习

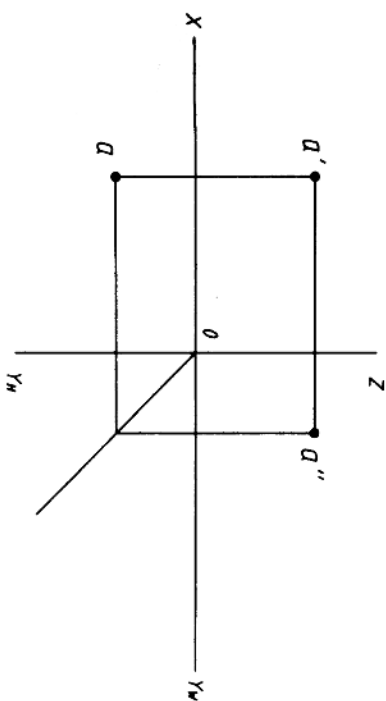
(1) 完成点 $A(10, 15, 18)$ $B(23, 5, 7)$ $C(0, 23, 10)$ 的三面投影



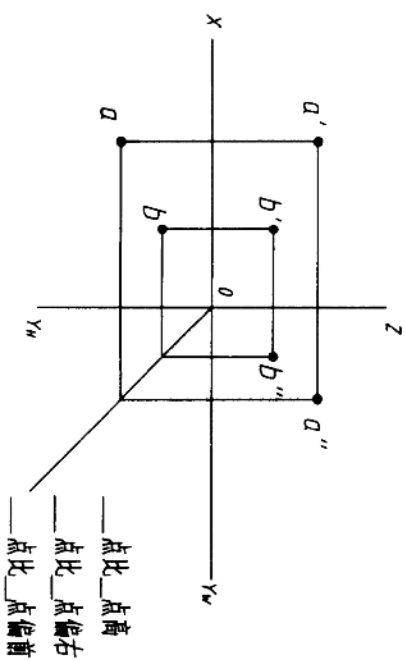
(2) 已知点的两面投影, 完成点的第三面投影



(3) 已知 B 点在 A 点的右侧 15, 下方 10, 后方 5, 作出 B 点的三面投影

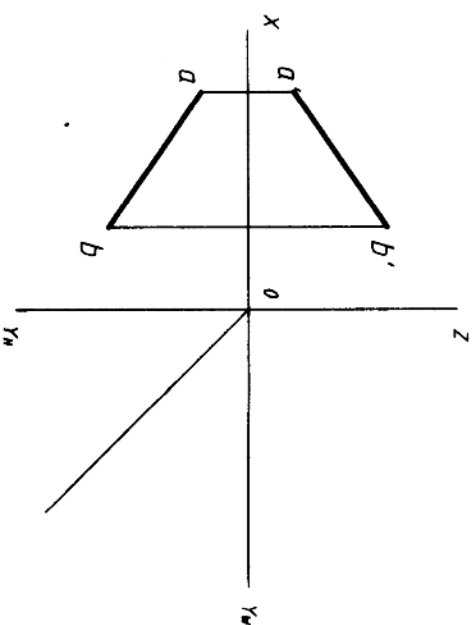


(4) 已知 C 点在 A 点正后方 10, 试完成 C 点的三面投影, 并比较 A 、 B 两点的相对关系

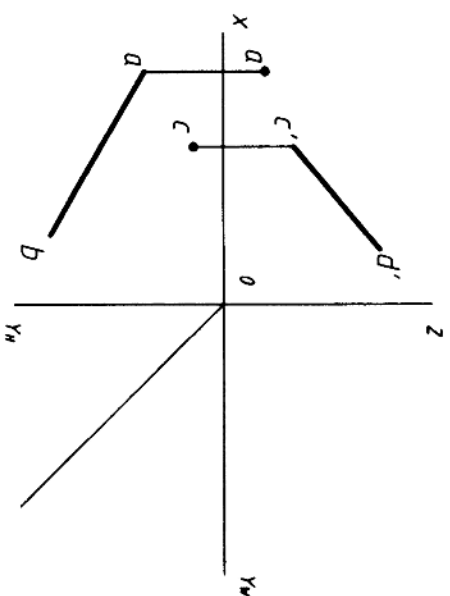


3-4 直线投影练习

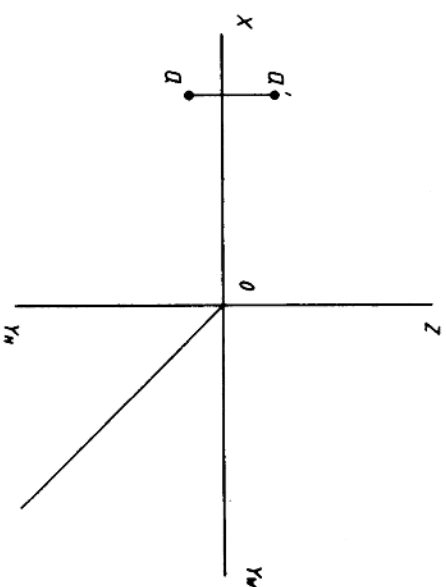
(1) 完成直线 AB 的三面投影



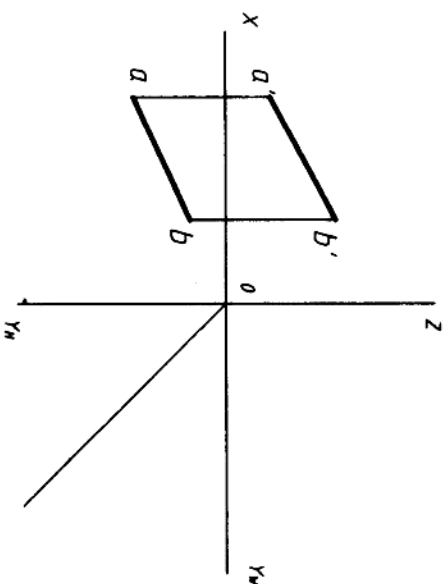
(2) 已知直线 AB 为水平线, CD 为正平线, 试完成直线的三面投影



(3) 已知直线 AB 为水平线, 长35, 根据 A 点的两面投影完成直线 AB 的三面投影

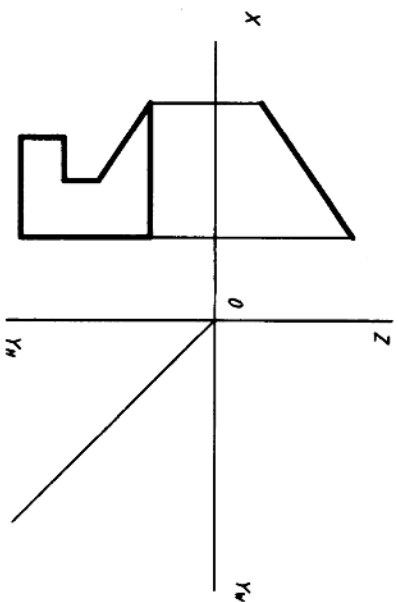


(4) 求直线 AB 的第三面投影并求实长 (透视图)

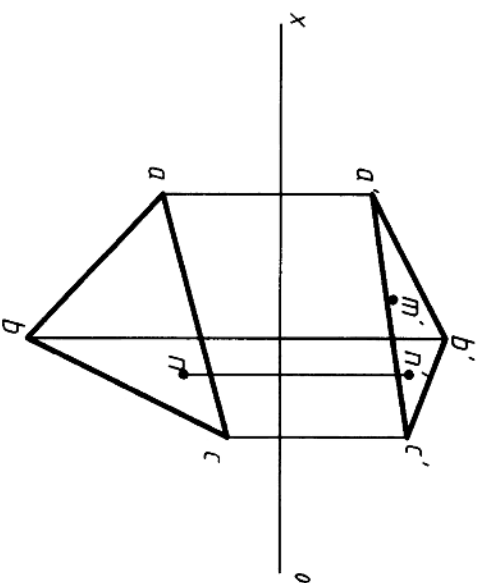


3-5 平面图形绘制练习

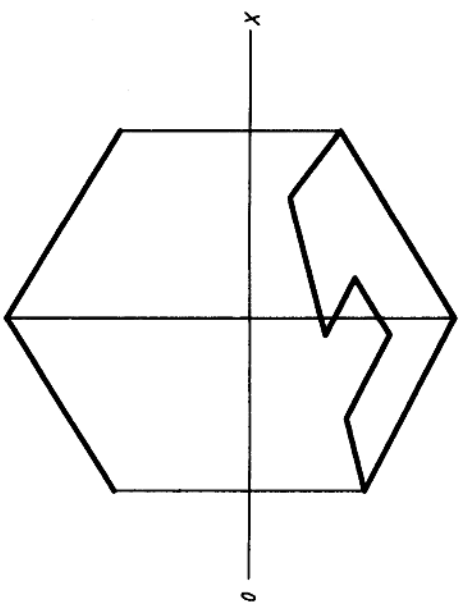
(1) 根据平面的两面投影做出第三面投影



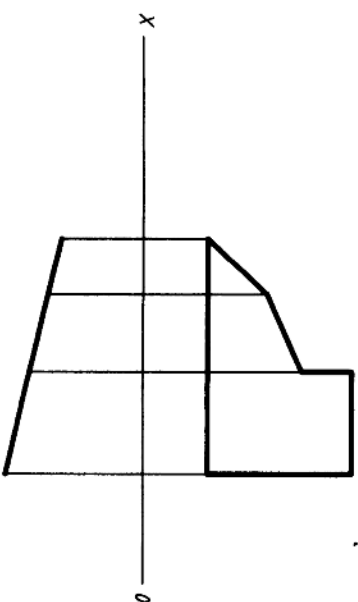
(2) 已知点 M 在平面 ABC 上, 求做点 M 的水平投影并判点 N 是否在面 ABC 上



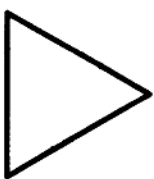
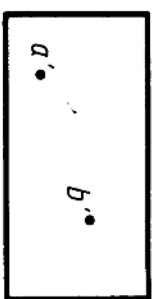
(3) 根据线段平面的条件完成平面的水平投影



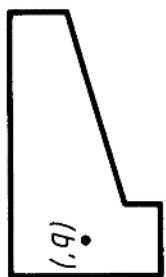
(4) 绘制出平面的实形(迹线)



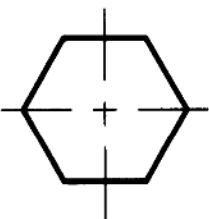
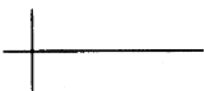
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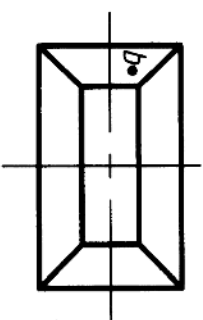
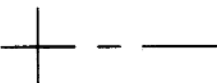
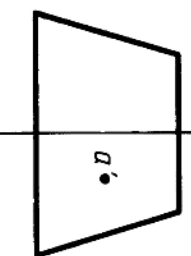
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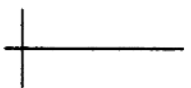
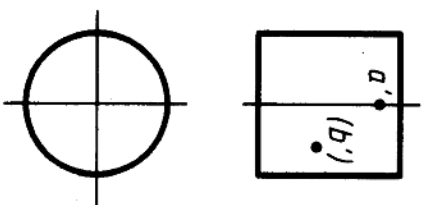
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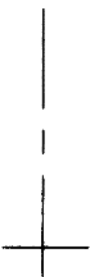
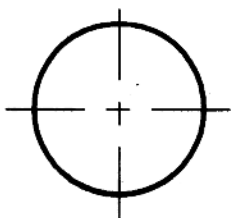
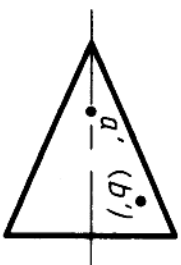
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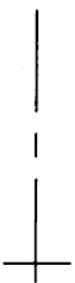
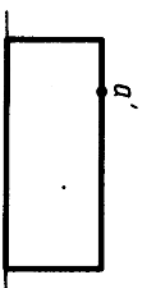
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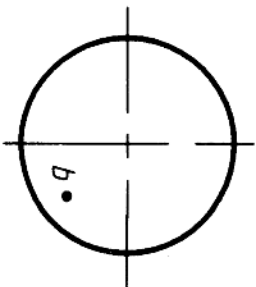
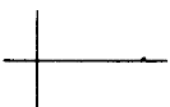
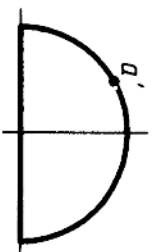
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(3)

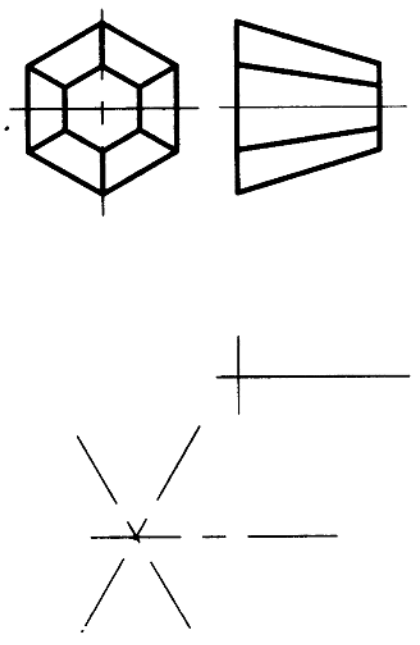


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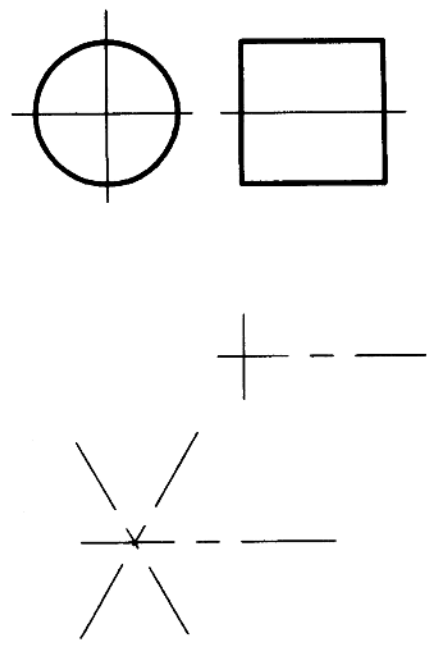


4-3 根据已知视图，画出其正等轴侧图。

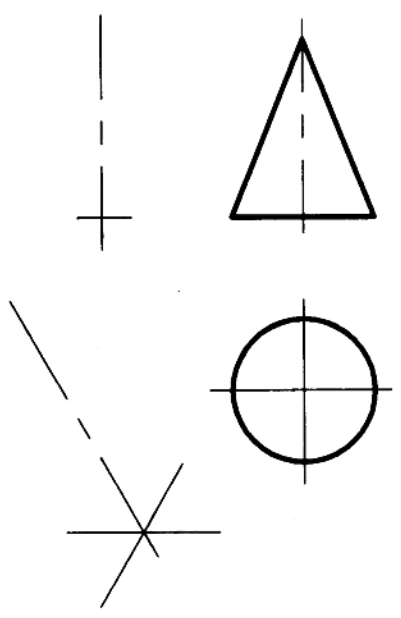
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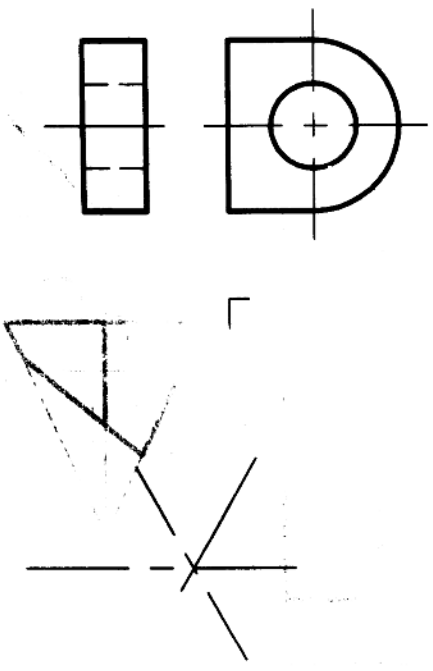
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(3)

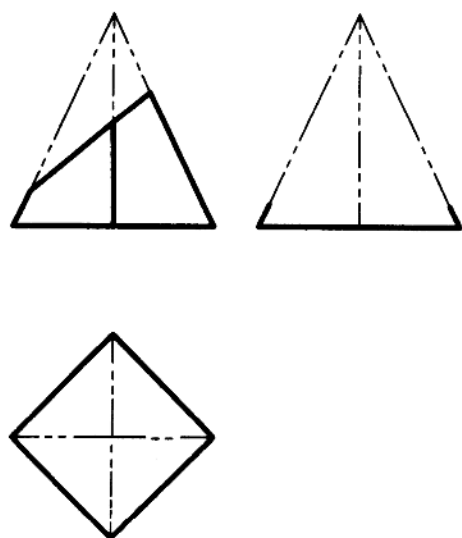


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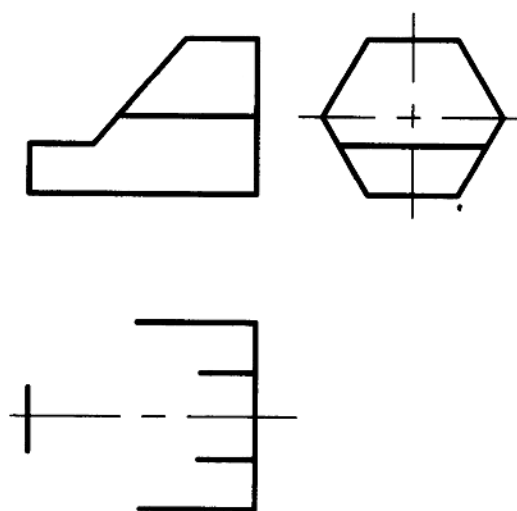


4-4 分析下列平面立体的截交线，并补全平面立体的三视图

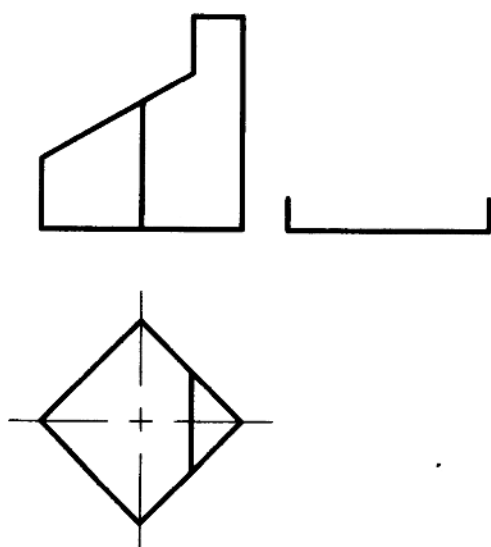
(1)



(2)



(3)



(4)

