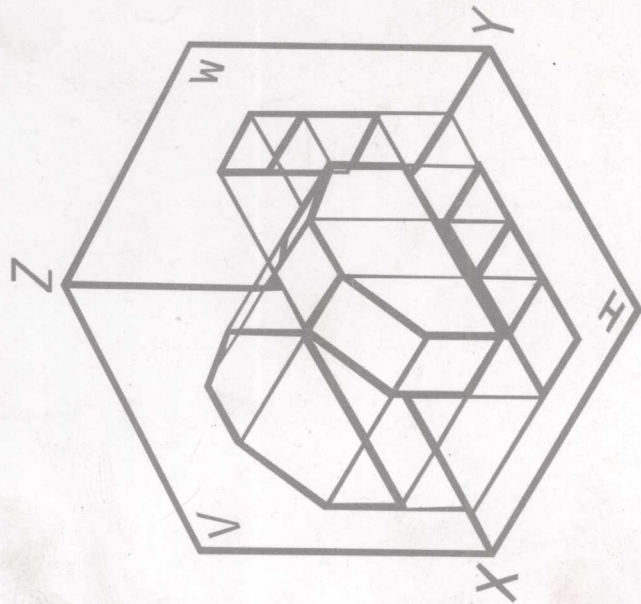
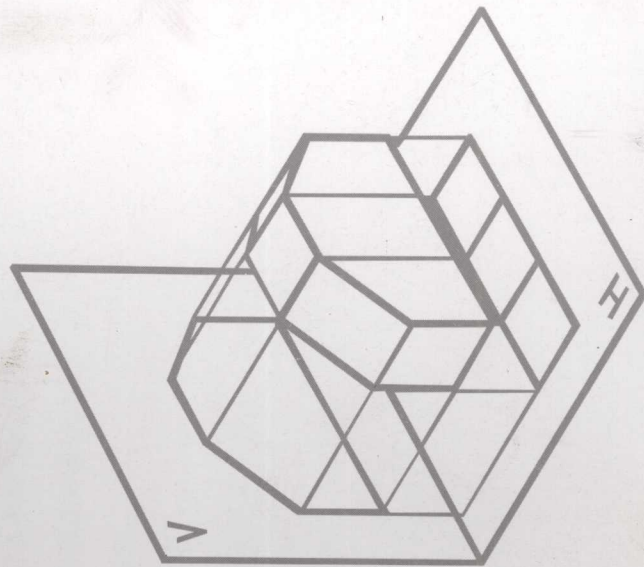


全国中等职业技术学校机械类专业通用教材

机械制图(第四版)习题集



本习题集是全国中等职业技术学校机械类专业通用教材《机械制图》(第四版)的配套用书。根据教材的内容和章节顺序,本书安排了相应的习题。习题形式新颖、难易适中,对巩固课堂知识、提高学生分析问题和解决问题的能力具有一定作用。

本习题集由李同军、李授编写,李同军主编;董国耀、王槐德审稿。

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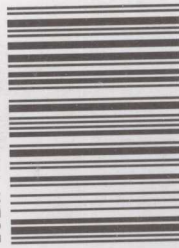
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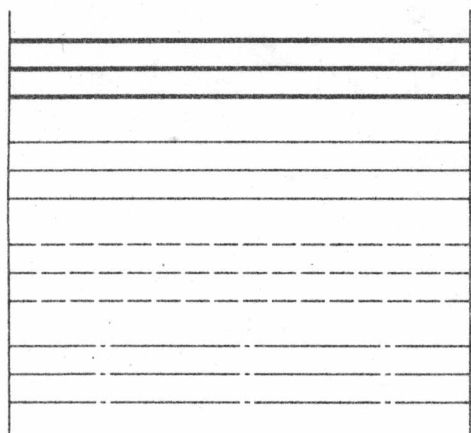
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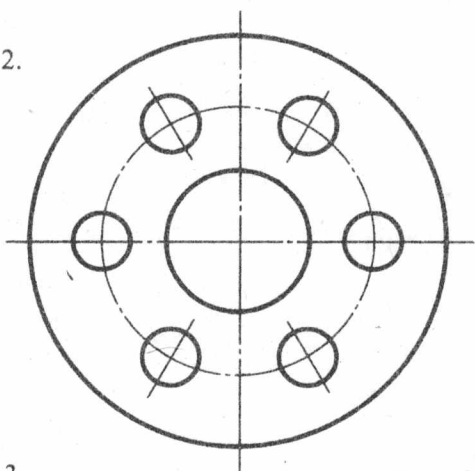
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1-1 将所给图线、图形抄画在右边

1.



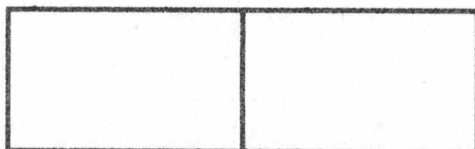
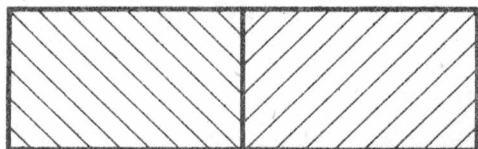
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3.

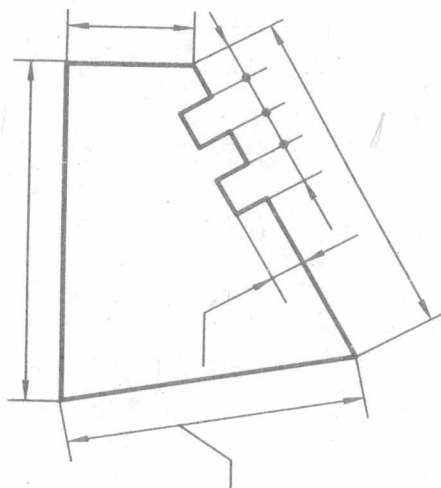
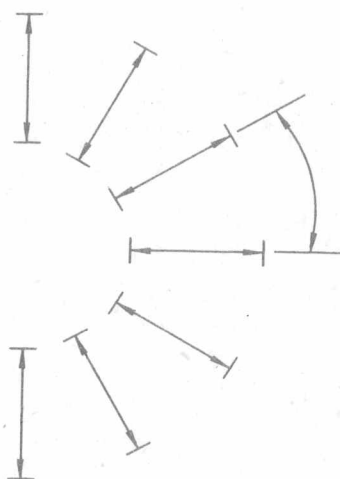


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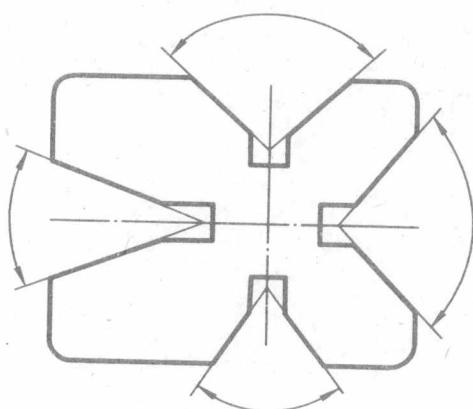


1-2 尺寸标注练习 (需标数值从图中度量, 取整数)

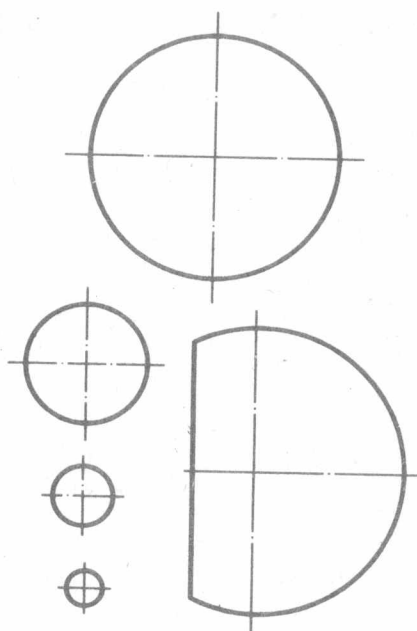
1. 线性尺寸



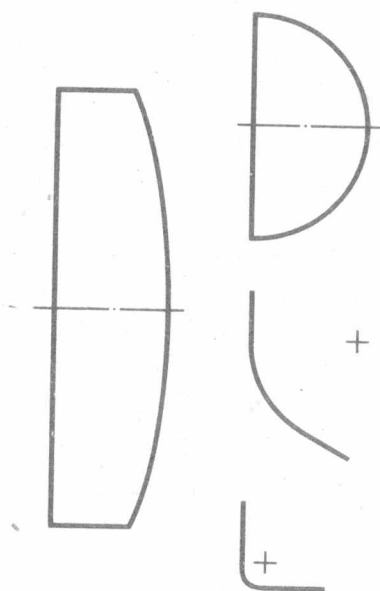
2 角度尺寸



3. 圆的直径

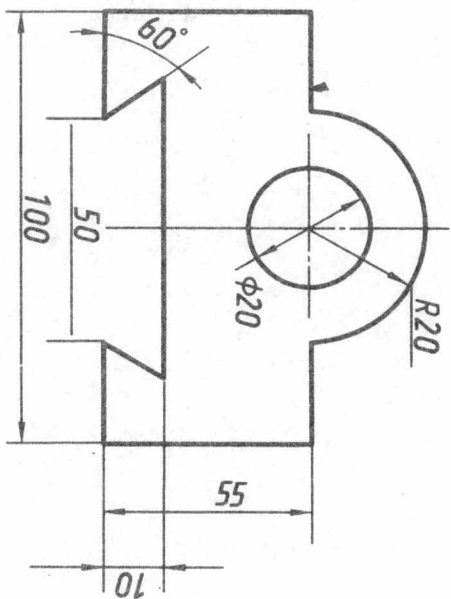
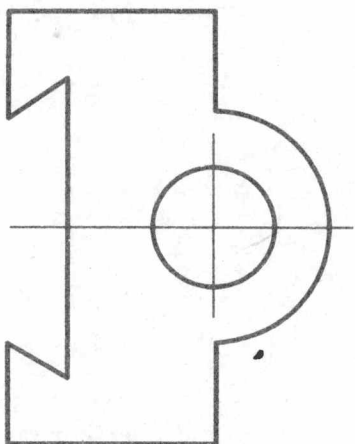


4. 圆弧半径

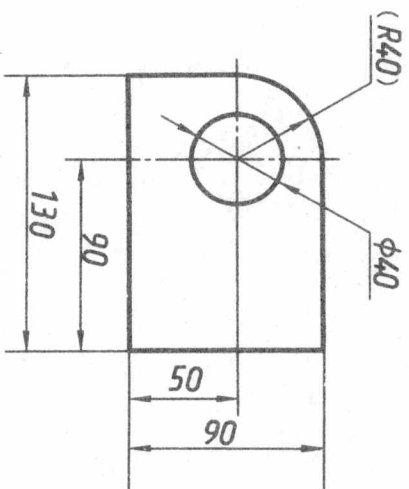


1-2 (续)

5. 右图中尺寸标注有错误, 在左图上正确标注尺寸



6. 参照右图所示图形, 用 1:2 比例在指定位置画出图形, 并标注尺寸



1-3 基本作图练习

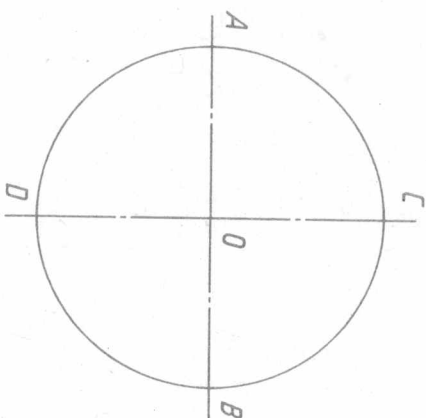
1. 将线段 AB 七等分



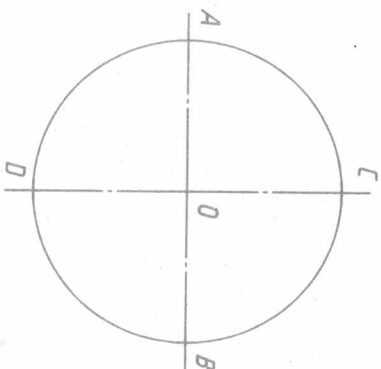
2. 以 AB 为底边作正三角形



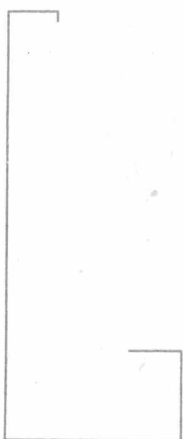
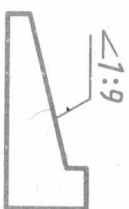
3. 作圆内接正六边形



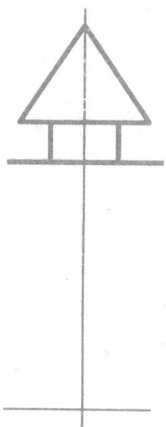
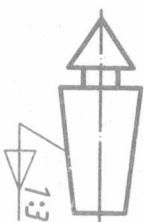
4. 作圆内接正五边形



5. 参照右上角示意图，作 $1:9$ 斜度图形

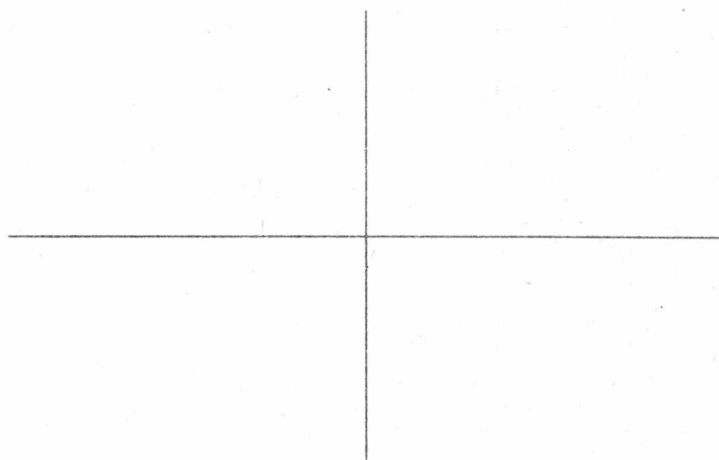


6. 参照右上角示意图，作 $1:3$ 锥度图形



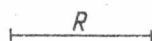
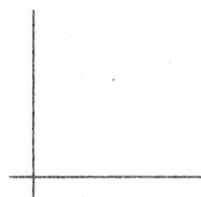
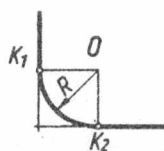
1-4 椭圆、圆弧连接

1. 用近似画法作椭圆（长轴 70 mm，短轴 45 mm）

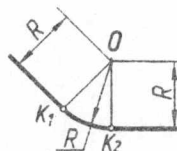


2. 参照图例用给定的尺寸作圆弧连接

(1)

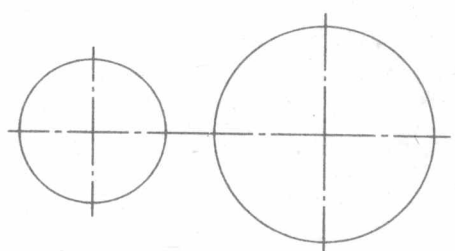
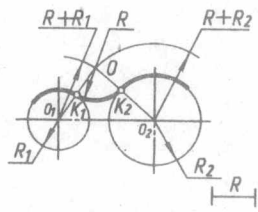


(2)

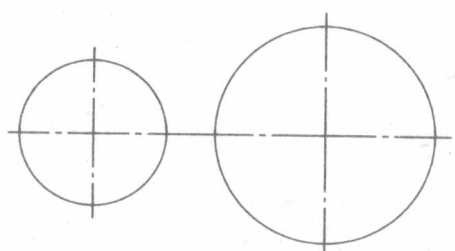
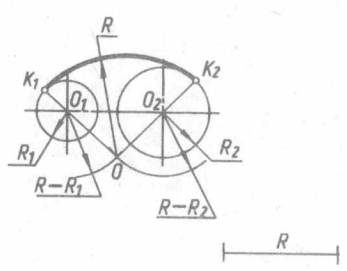


1-4 (续)

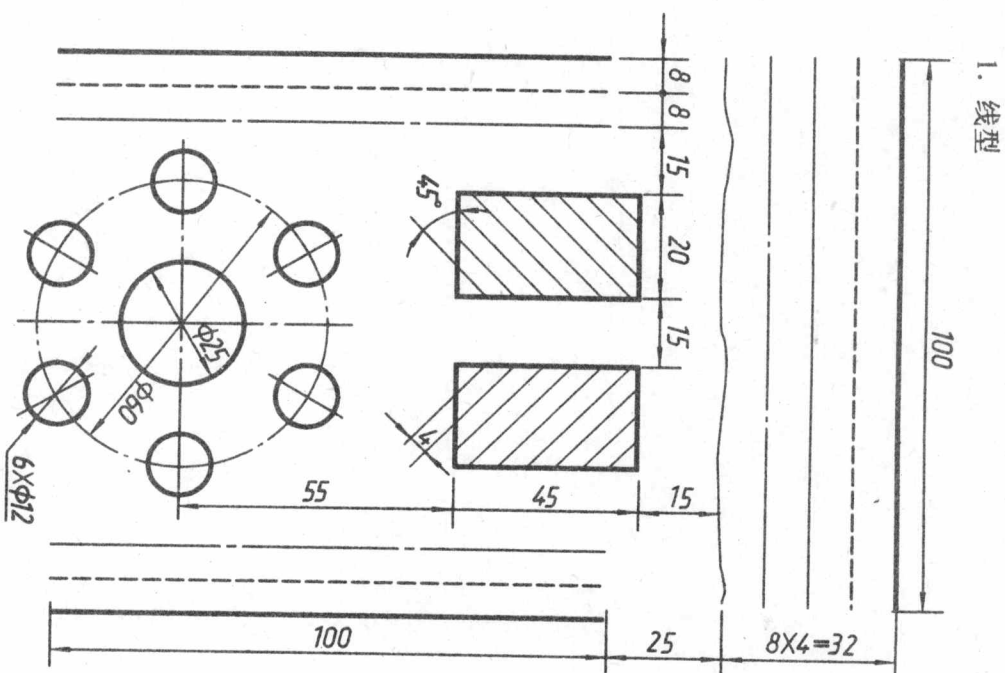
(3)

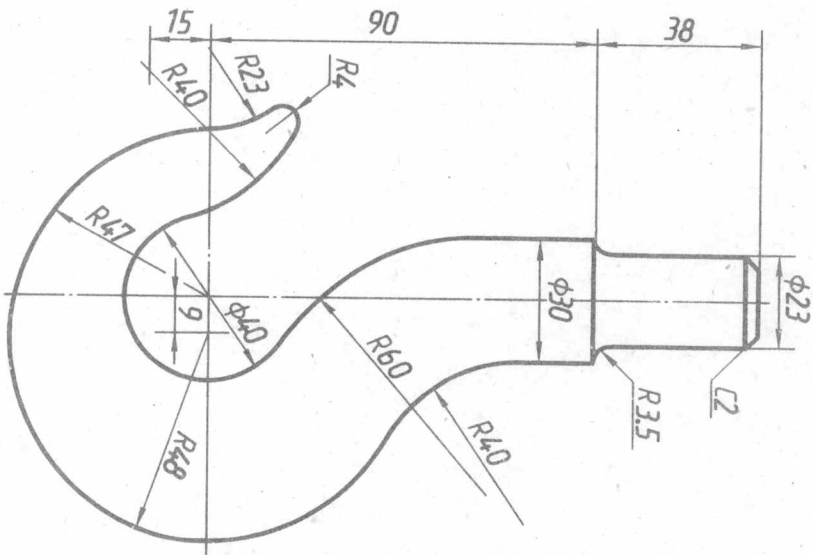


(4)



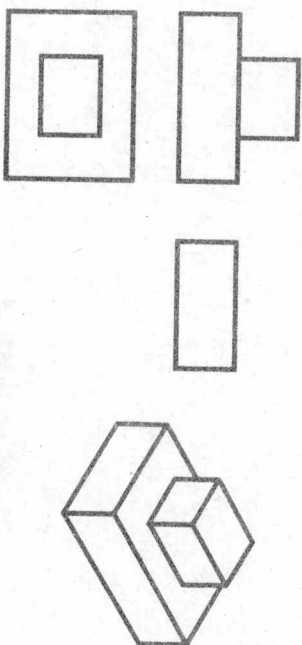
1. 目的、内容：初步掌握国家标准对制图的基本规定，学会绘图仪器和工具的使用方法。抄画：（1）线型。（2）零件轮廓。在两个题中，任选一个图形并注尺寸。
 2. 要求：图形正确，布置适当，线型规范，字体工整，尺寸齐全，符合国标，连接光滑，图面整洁。
 3. 图名：线型基本练习或圆弧连接基本练习。
 4. 图幅：A3 图纸（标题栏参照教材图 1-3）。比例：1:1。
 5. 步骤及注意事项
- （1）绘图前应对所画图形仔细分析研究，以确定正确的作图步骤，特别要注意正确作出零件轮廓线上圆弧连接的各切点及圆心位置。在图面布置时，还应考虑预留标注尺寸的位置。
 - （2）线型：粗实线宽度为 0.7mm，虚线和细实线宽度约为粗实线的 1/2，虚线每一小段长度约 3~4mm，间隙约 1mm，点画线每段长 15~20mm，间隙及作为点的短画共约 3mm。
 - （3）字体：图中汉字均写长仿宋体并按指定的大小先打格子，然后写字；写数字前应按字高先画两条平行细线，以保证尺寸数字高度一致。
6. 箭头：宽约 0.7mm，长为宽的 4 倍左右。
 7. 加深：完成底稿后，必须仔细校核，然后用铅笔加深。圆规的铅芯应使用比画直线的铅笔软一号。





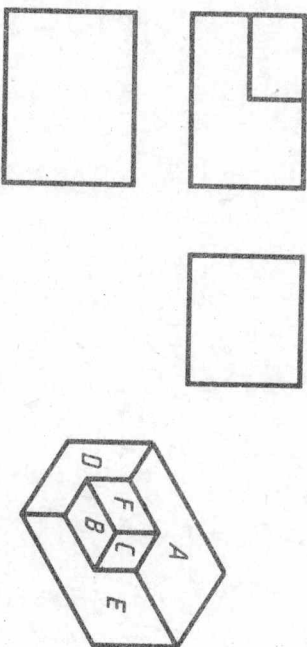
2-1 根据轴测图，补画三视图中漏画的图线，并填空回答问题

1.



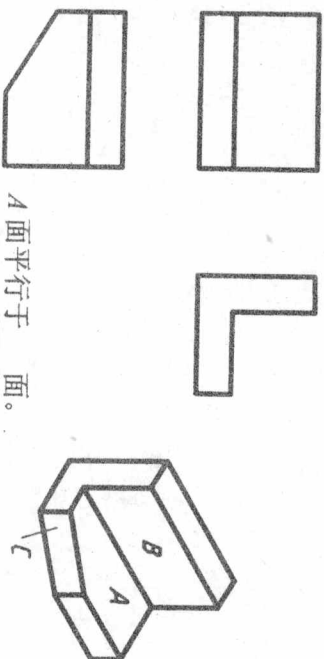
主视图与俯视图长——。
主视图与左视图高——。
俯视图与左视图宽——。

2.



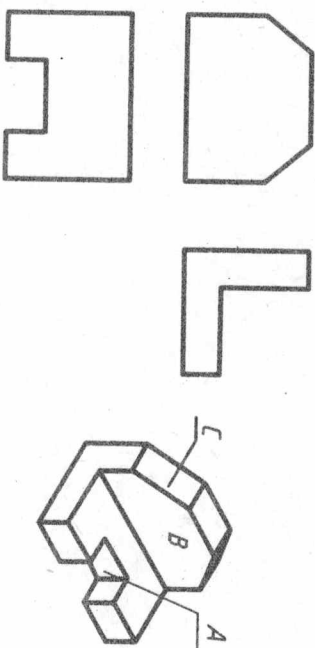
比较上下：A面在——，B面在——。
比较左右：C面在——，D面在——。
比较前后：E面在——，F面在——。

3.



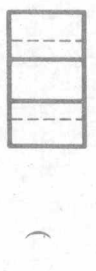
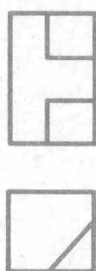
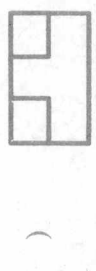
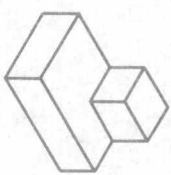
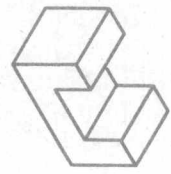
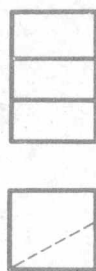
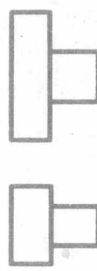
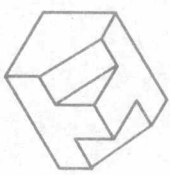
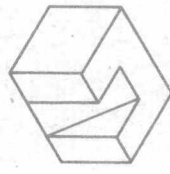
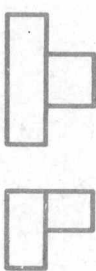
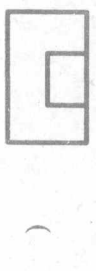
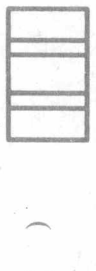
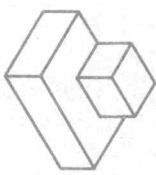
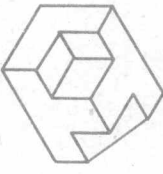
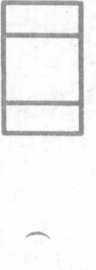
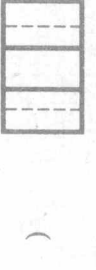
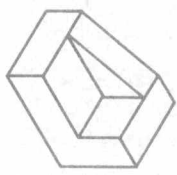
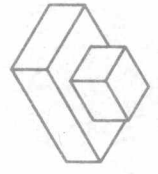
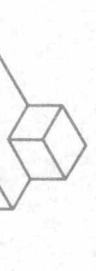
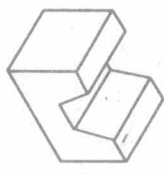
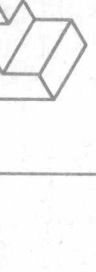
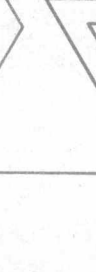
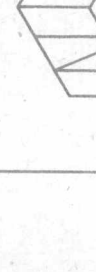
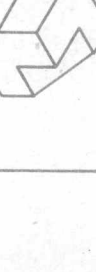
A面平行于——面。
B面平行于——面。
C面垂直于——面，在——面投影积聚成直线。

4.



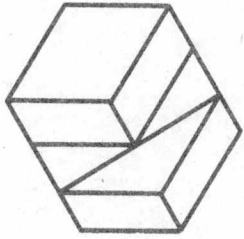
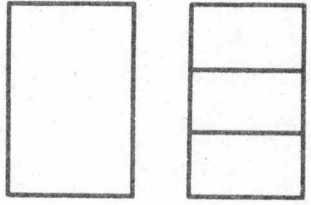
A面与B面平行于——面。
C面垂直于——面，在——面投影积聚成直线。

2-2 根据物体的三视图，找出对应的轴测图（在括号中填写对应的序号）

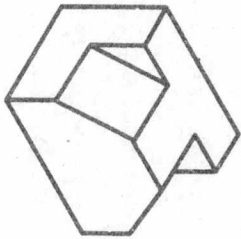
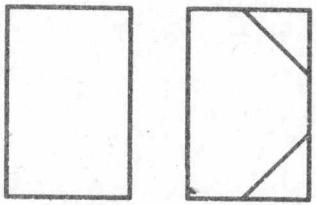
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 ()	 ()	 ()	 ()	 ③	 ④
 ()	 ()	 ()	 ()	 ⑤	 ⑥
 ()	 ()	 ()	 ()	 ⑦	 ⑧
 ()	 ()	 ()	 ()	 ⑨	 ⑩
 ()	 ()	 ()	 ()	 ⑪	 ⑫

2-3 根据轴测图补画三视图中漏画的图线

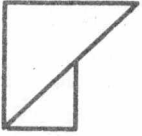
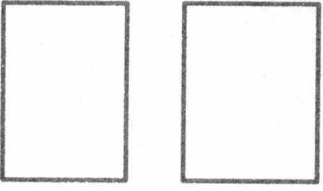
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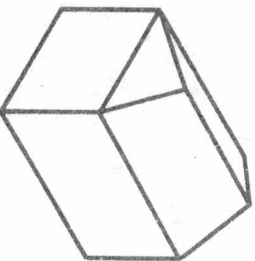
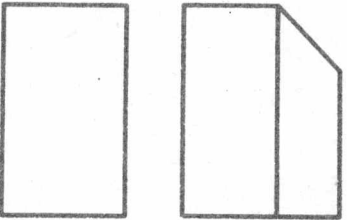
2.



3.

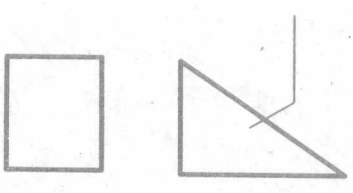


4.

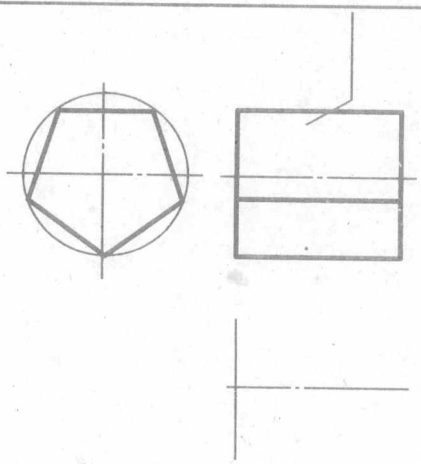


2-4 根据基本体的两视图补画第三视图，然后写出基本体名称，并标注尺寸（不注数值）

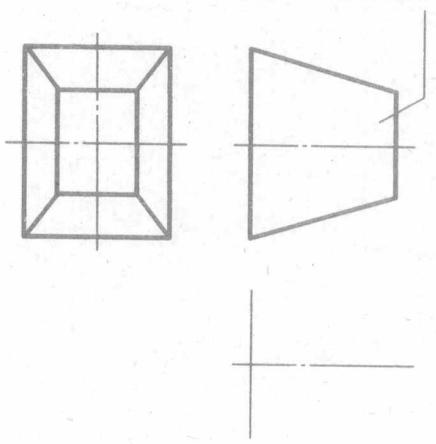
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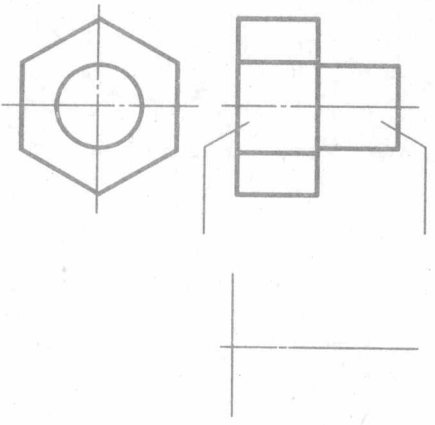
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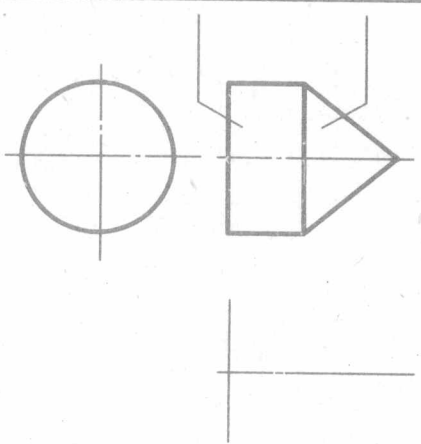
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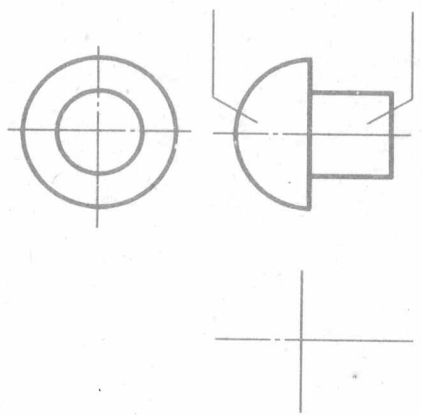
4.



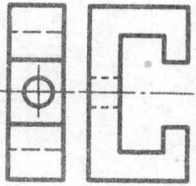
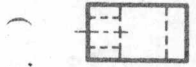
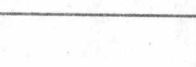
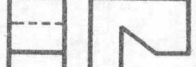
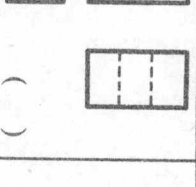
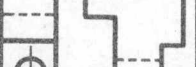
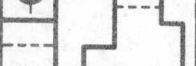
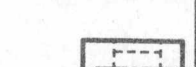
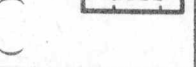
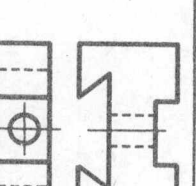
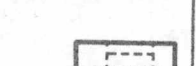
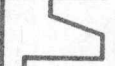
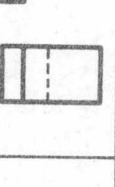
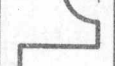
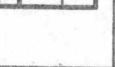
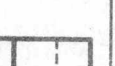
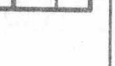
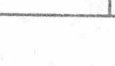
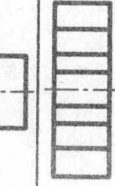
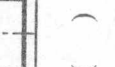
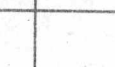
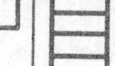
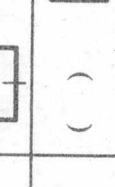
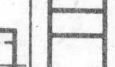
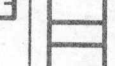
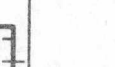
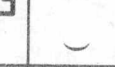
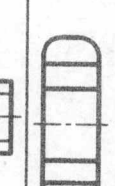
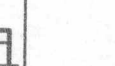
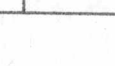
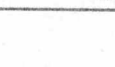
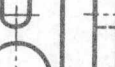
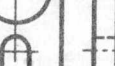
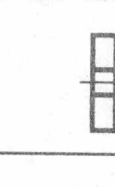
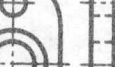
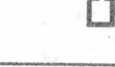
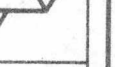
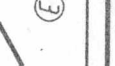
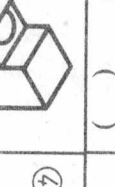
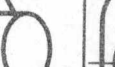
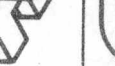
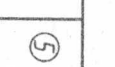
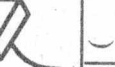
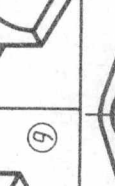
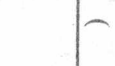
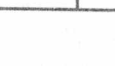
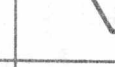
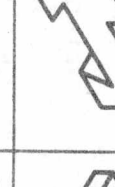
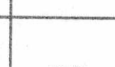
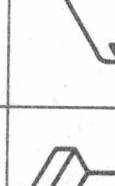
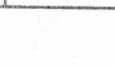
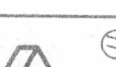
5.



6.

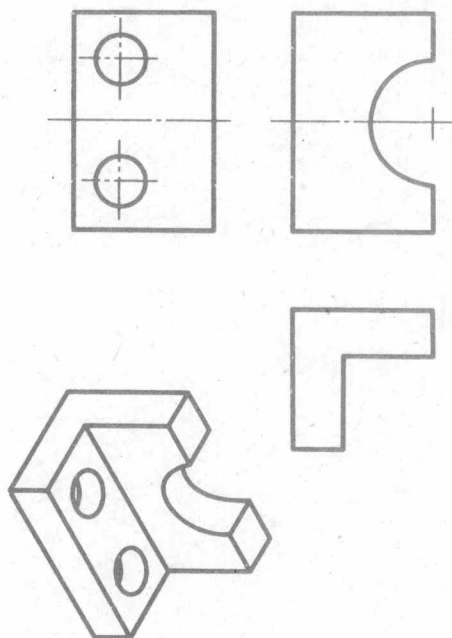


2-5 根据轴测图找出三视图，并在括号内填写相应的序号

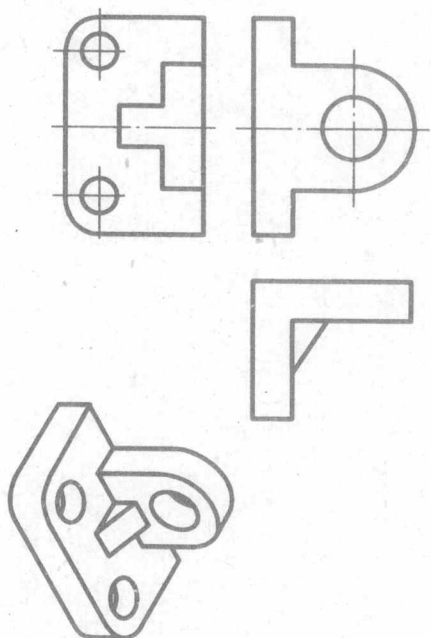
              	              	              	              	              	              	              
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2-6 补画三视图中漏画的图线

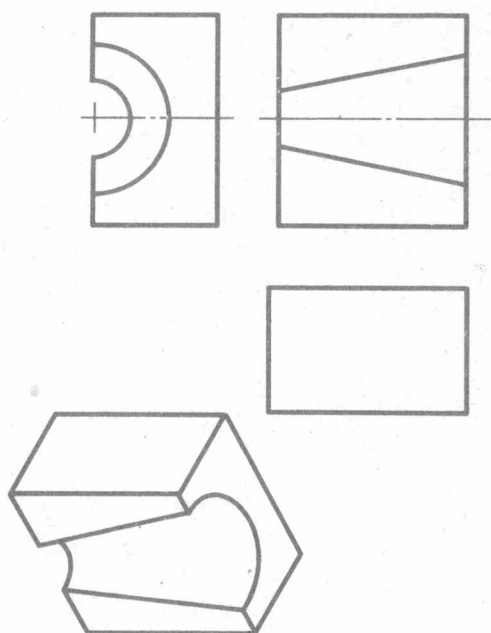
1.



2.



3.



4.

