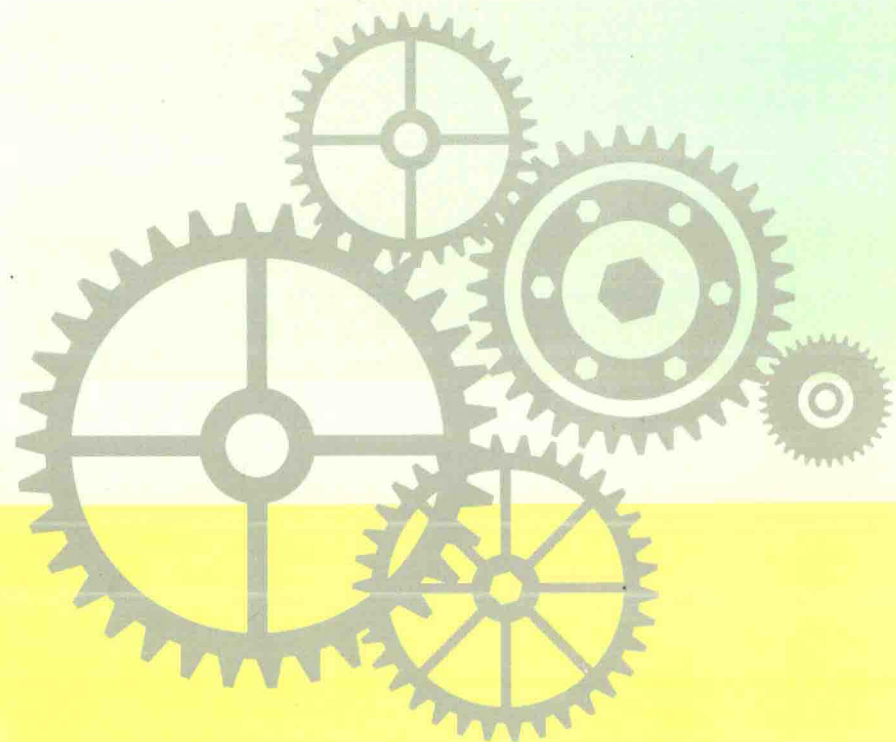


高等学校适用教材

机械制图习题集

刘仁杰 马丽敏 秦伟 编著



中国质检出版社
中国标准出版社

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内 容 提 要

本习题集是作者根据多年教学和改革经验编写而成。注重基础性、综合性和实用性, 可满足机械类和近机械类不同学时数的教学要求。习题集内容有: 制图的基本知识、组合体视图及其尺寸注法、机件表达方法、标准件和常用件、零件图、装配图、焊接图等。

本习题集可供大学本、专科教学和相关科技人员参考使用。

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前 言

本习题集与马丽敏、刘仁杰主编的《机械制图》（中国计量出版社，2008）教材配套使用，是以教育部制定的高等工科学校《画法几何及机械制图教学基本要求》为指导，总结和归纳了编者多年教学和改革经验。内容的安排和选择力求循序渐近，注重逻辑性，使学生在掌握机械制图基本知识和基本理论的同时，掌握工程技能的基本能力，提升空间逻辑思维能力和形体构思能力。

本习题集全部采用最新的技术制图和机械制图国家标准，题量适当，难度适中，选题合理，适宜课后巩固和自学，选题力求用较少的学时使学习者得到较好的工程技能训练。

本习题集由大连工业大学刘仁杰、马丽敏、秦伟编著，由曹学云主审。刘仁杰编写第3章、马丽敏编写第6、7章，秦伟编写第1、2、4、5章。

本习题集是在总结多所院校参与编写使用的习题集的基础上，充分吸纳其他院校宝贵的教学经验编写而成的，在此向对本习题集悉心指导和提出宝贵意见的同仁们表示诚挚的谢意！

由于编写水平有限，诚恳希望读者对习题集中的缺点、错误给予批评指正。

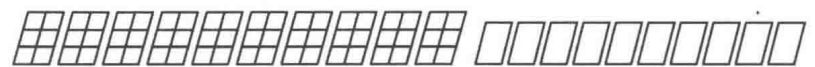
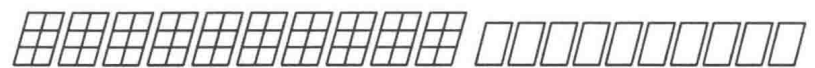
编 者

2011. 1

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制图校核比例件数学院专业班级



椭圆毫米厘设计描审共第张系中



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左右前后主俯仰侧视投影长宽高



尺寸内外厚薄轴测平立球环顶底



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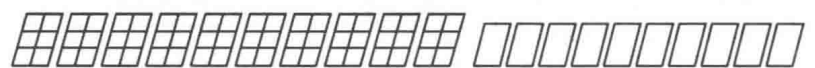
剖切断面局部旋转放大向视图形



高低分寸重零装条件投影注明件



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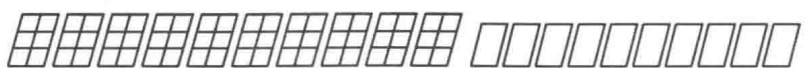
密封环焊铆联接热处理弹簧镀铬



调质渗碳涂料滑板图号校核院系



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零件钻角紧固技术要求未注均为



钢板铸铁青黄铜铝铅铍铬矩明时



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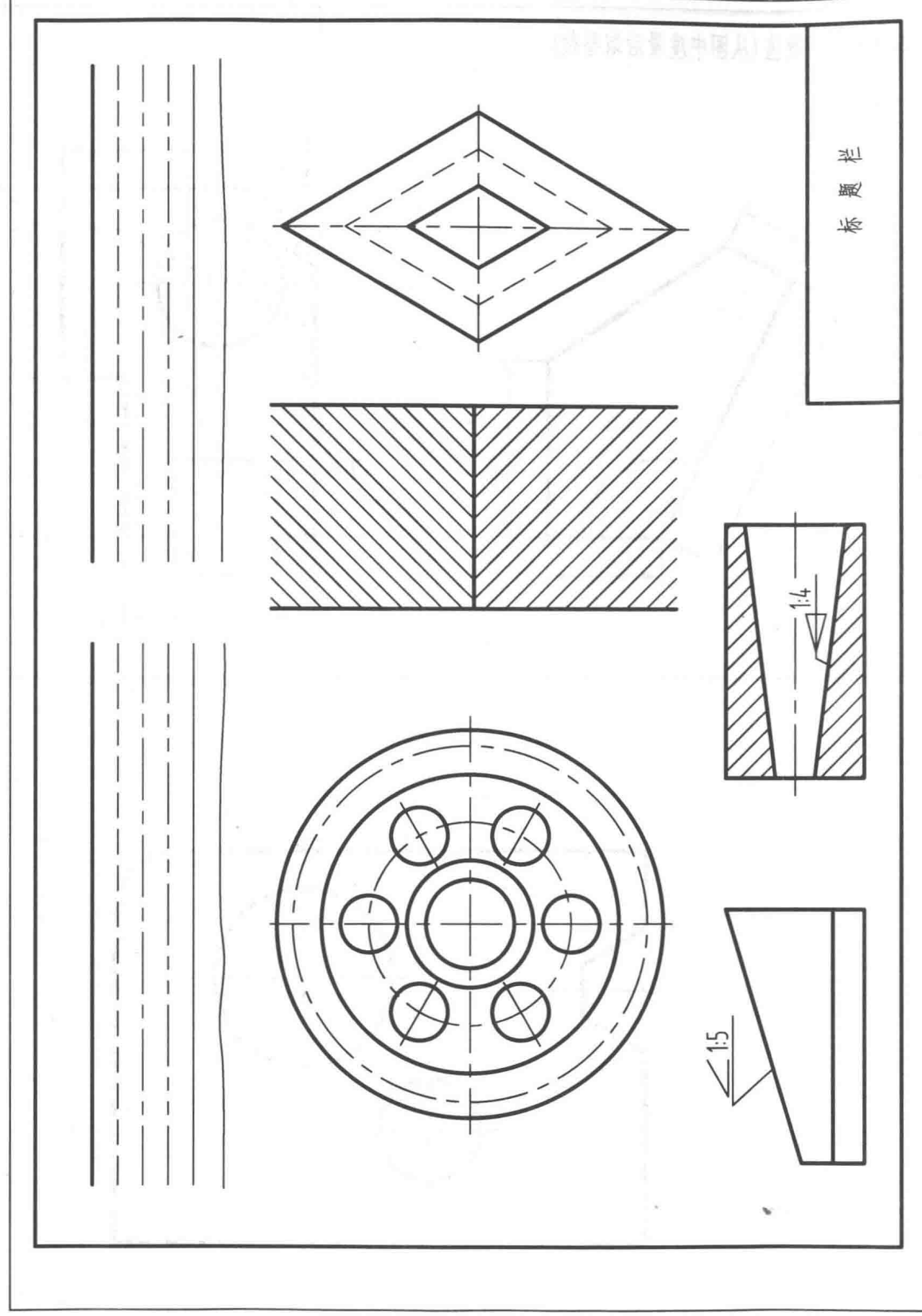


名称序号材料备注装配示意展开



固定紧密松动滑块焊接转轴第张





一、作业名称：线型练习

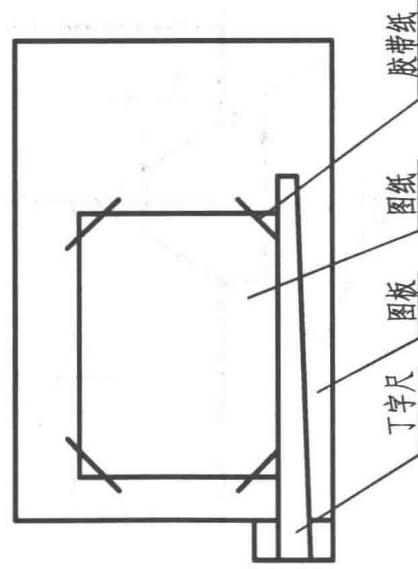
二、作图要求：要求正确使用仪器。图中除锥度、斜度外，皆为特殊角，必须用三角板配合丁字尺做出。图线线型符合国家标准GB/T 4457—1984和GB/T 17450—1998。

三、作图步骤：

- (1) 将A3图纸按左下图所示固定在图板上。
- (2) 根据右下图画出标题栏(标准图纸时略)。

说明

- (3) 将所示图例用分规放大一倍，确定每一图形的位置。
- (4) 按照2:1的比例画出图形底稿(线型不可放大)。
- (5) 绘制锥度、斜度时，只量取斜线部分左端，再按给定数据值作出斜线，切勿照抄原图。
- (6) 锥度、斜度符号借助三角板绘制。
- (7) 检查无误后描粗、加深。
- (8) 填写标题栏。图名、校名、院名、图号写10号字，其余写7号字。



绘图	(日期)	(图名)		(校名)
校对	(日期)	比例	数量	(院名)
审核	(日期)	班级	学号	图号

1-4 尺寸标注。

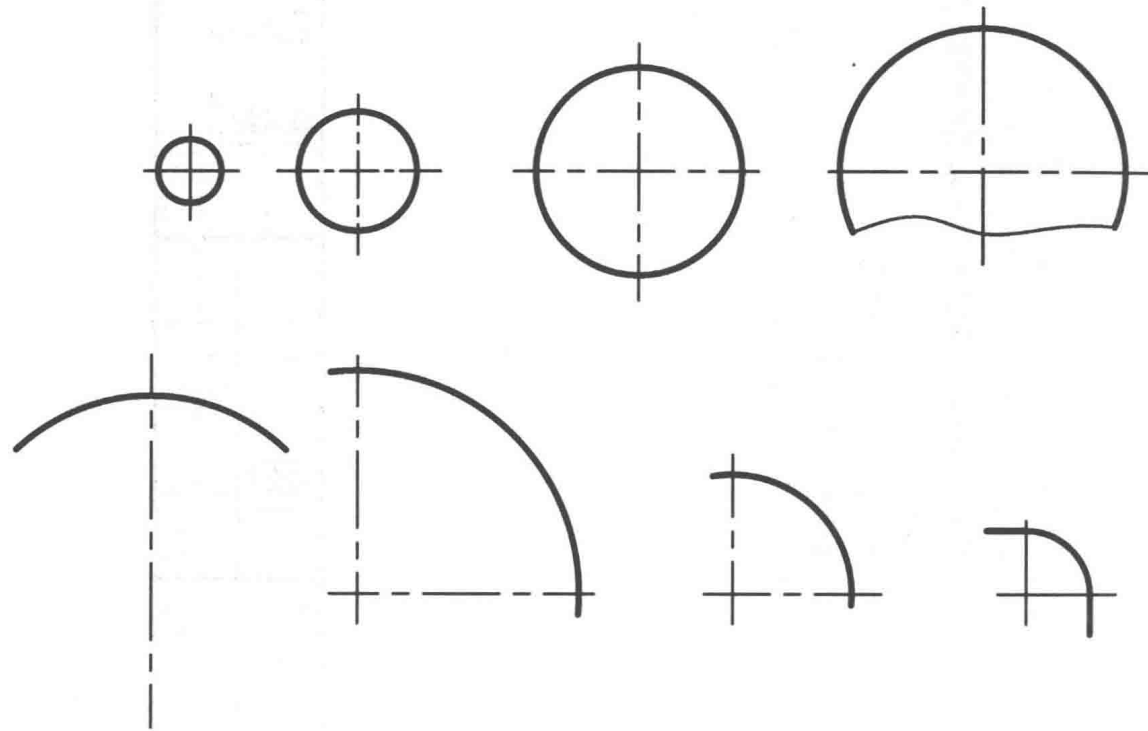
班级

学号

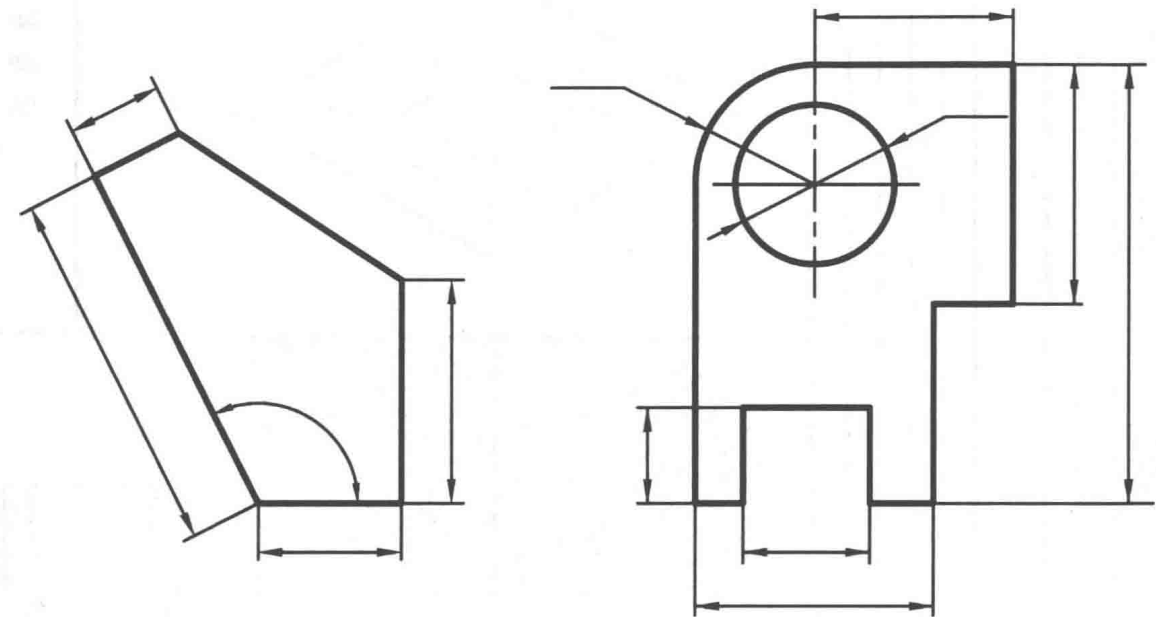
姓名

4

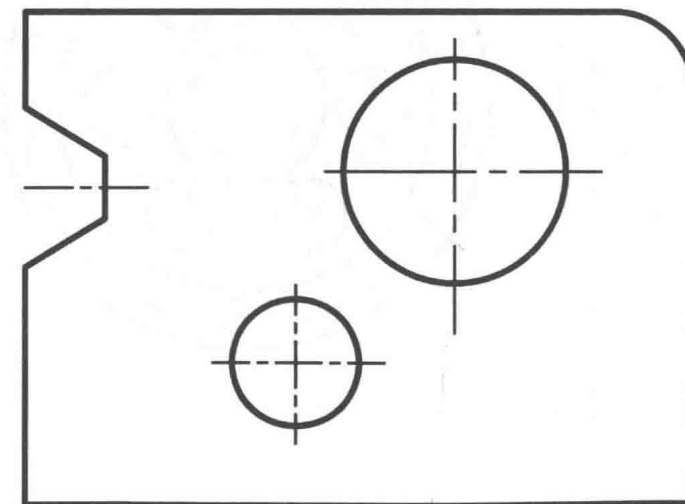
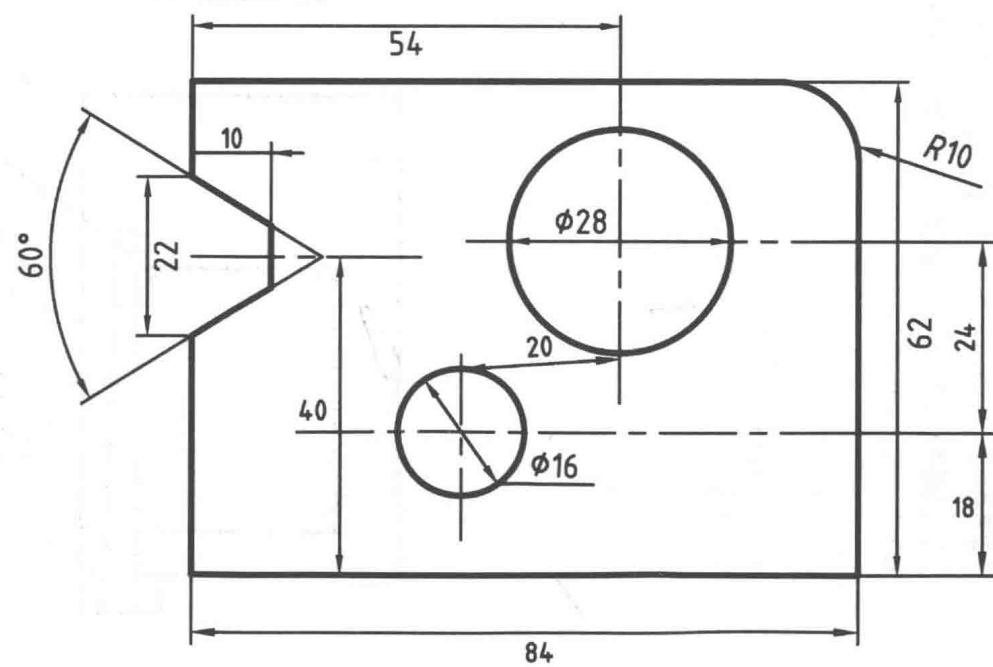
1. 标注下列圆及圆弧的尺寸(从图中度量后取整数)。



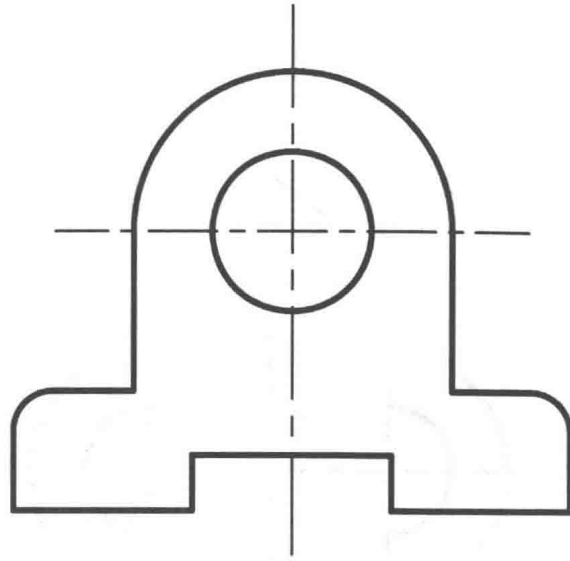
2. 填写尺寸数值(从图中度量后取整数)。



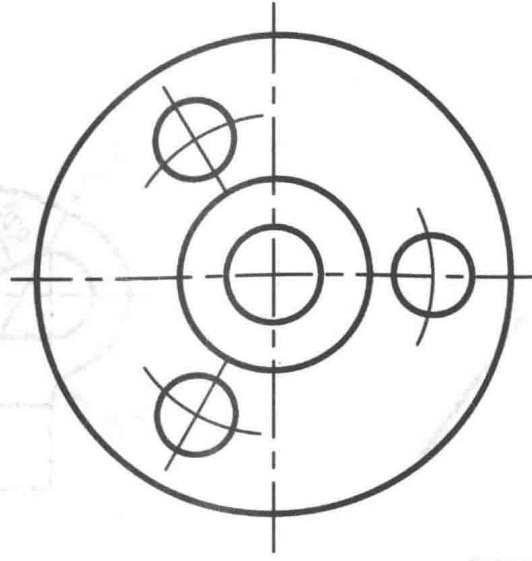
3. 指出下图中尺寸标注的错误,在右图上正确地标注出全部尺寸。



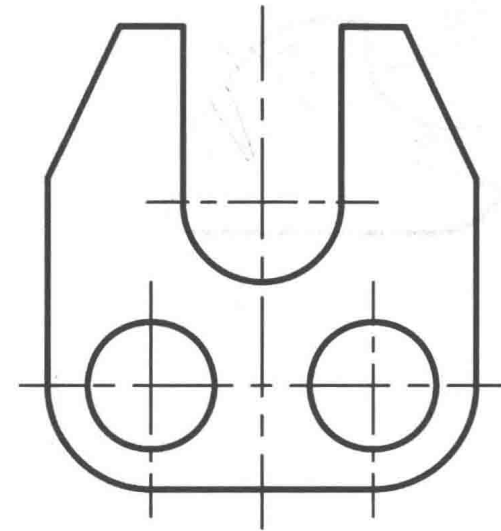
1.



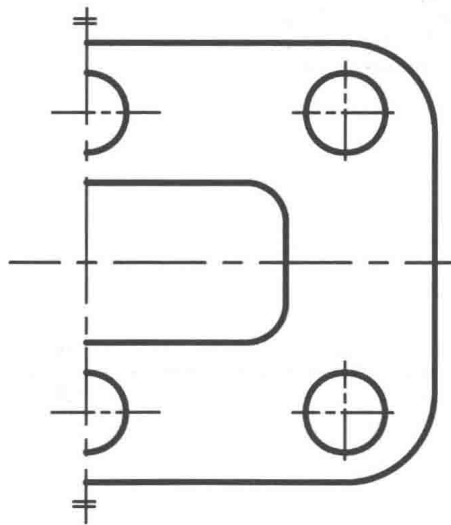
2.



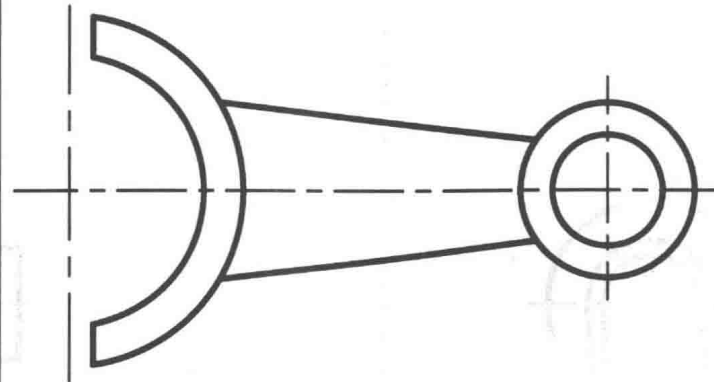
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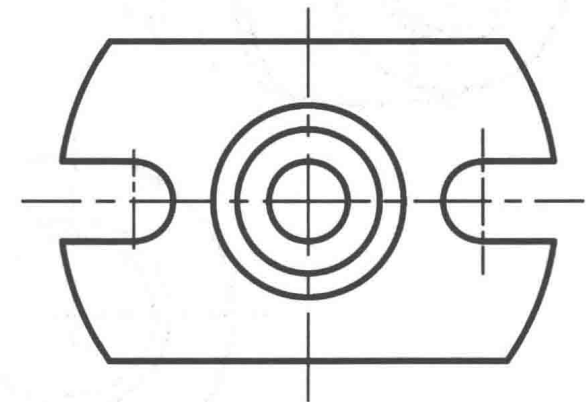
4.



5.



6.



1-6 圆弧连接 参照已知尺寸, 在指定位置补全图形(不注尺寸)。

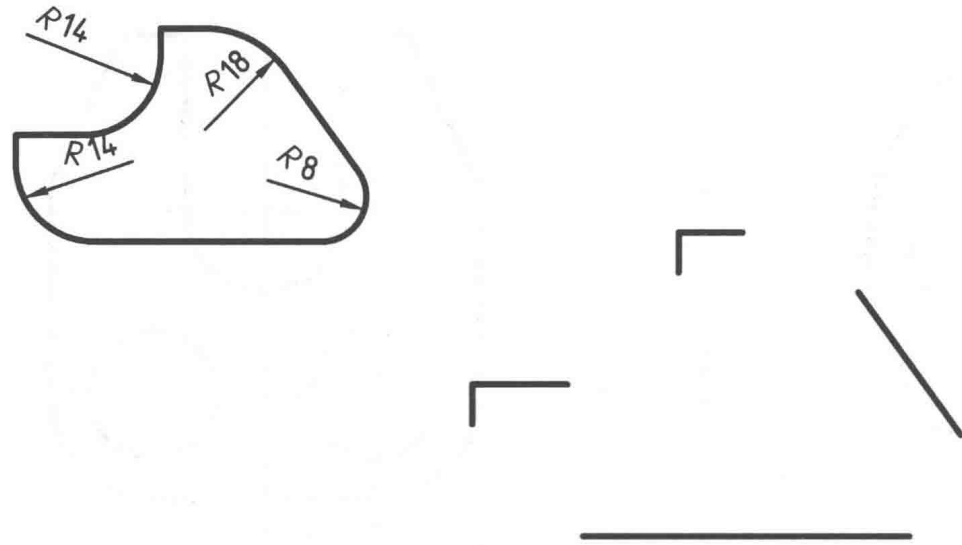
班级

学号

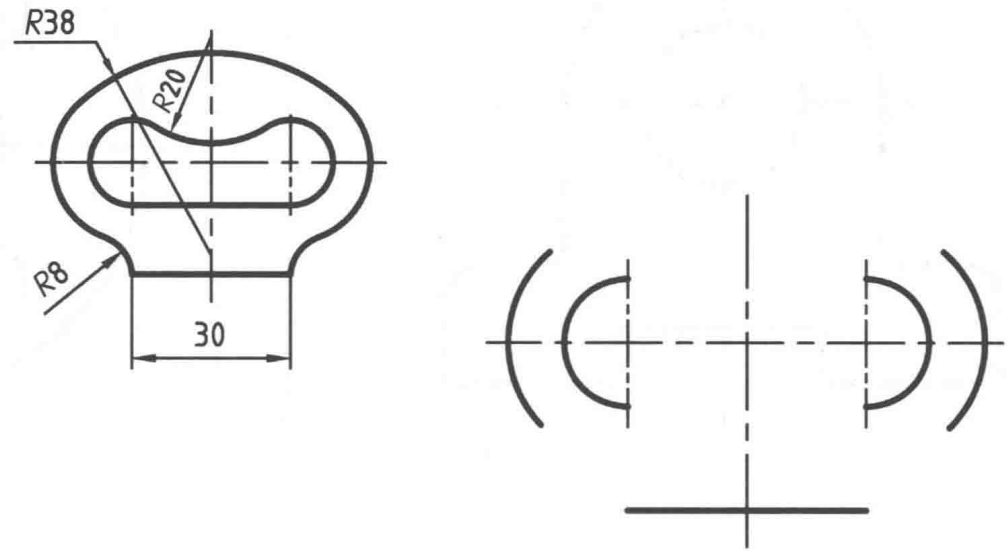
姓名

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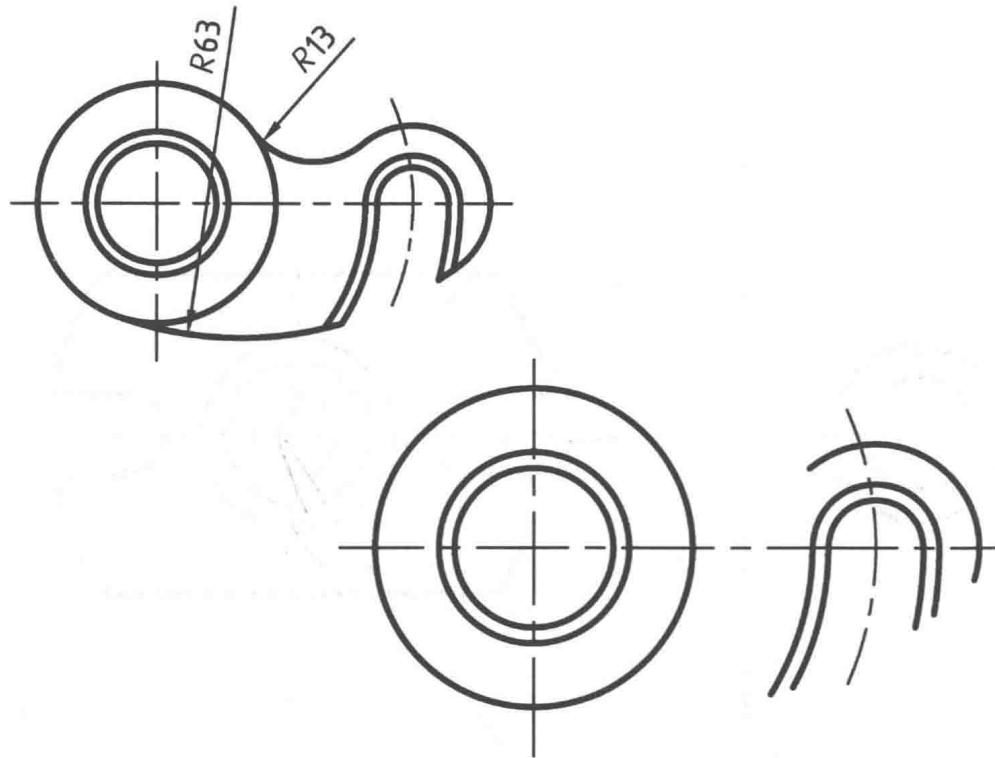
1.



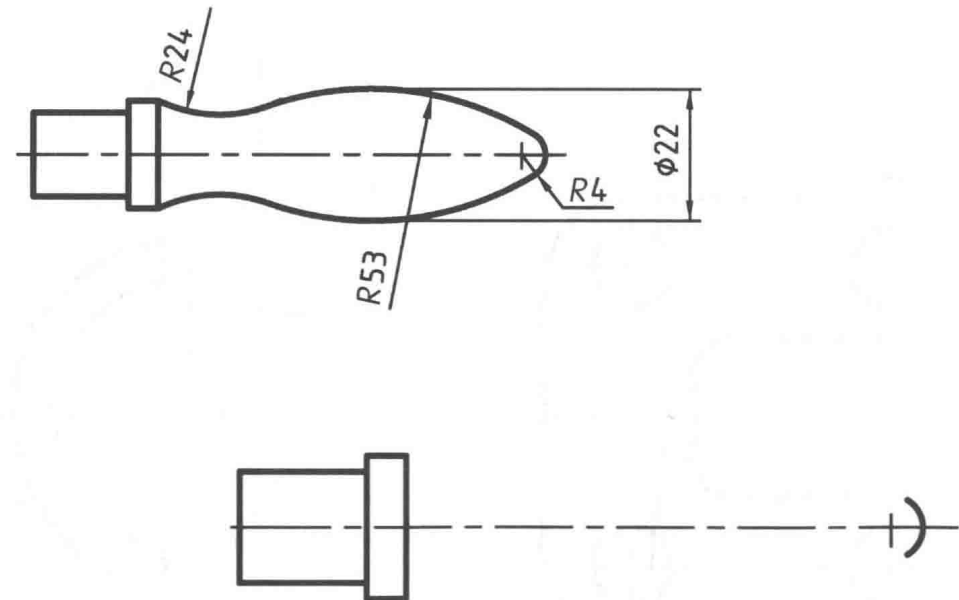
2.



3.



4.



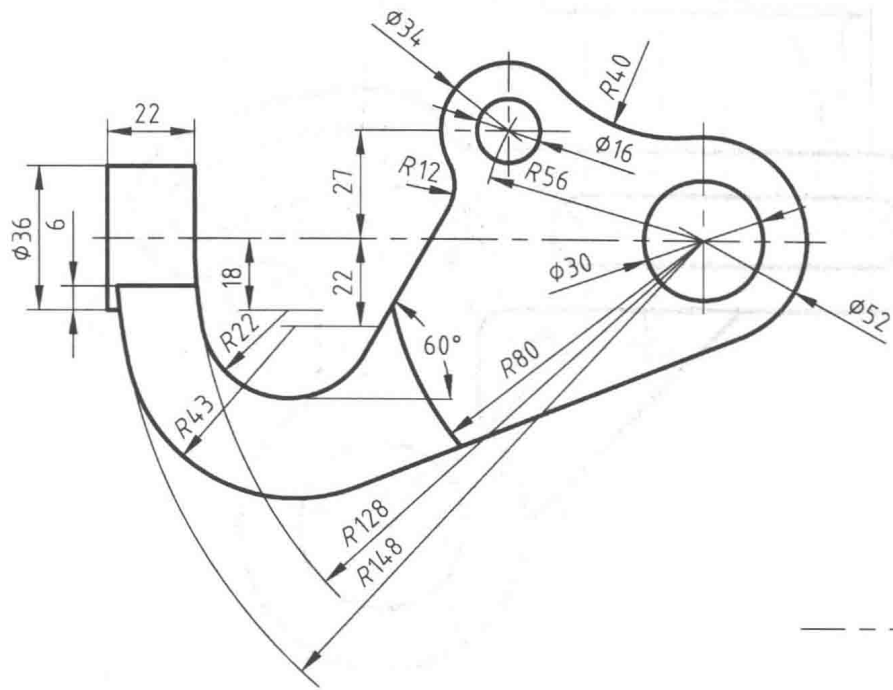
1-7 圆弧连接 参照已知尺寸、在指定位置画出图形,标注尺寸。

班级

学号

姓名

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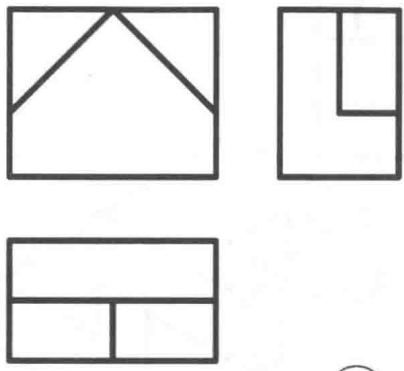
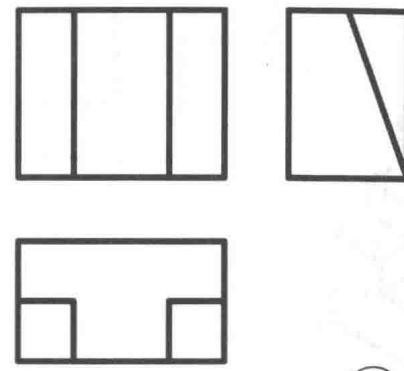
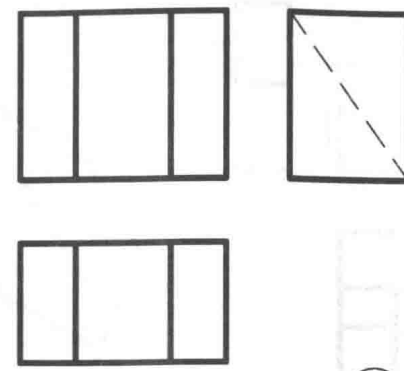
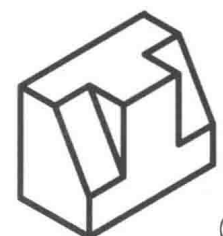
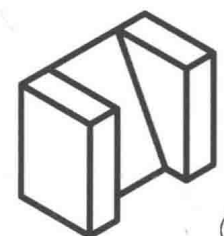
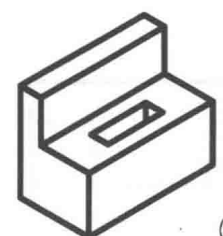
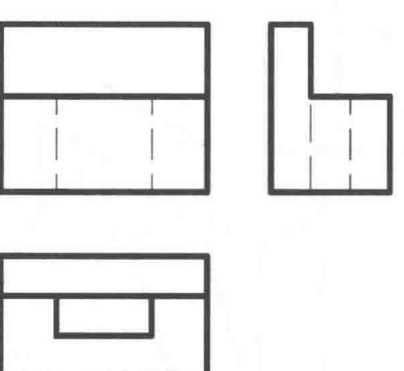
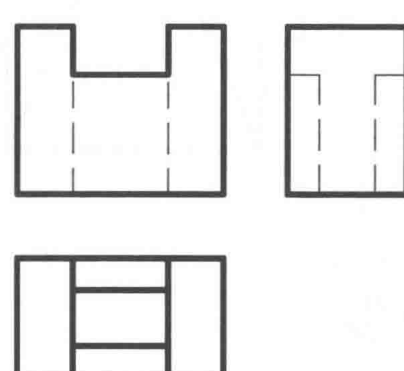
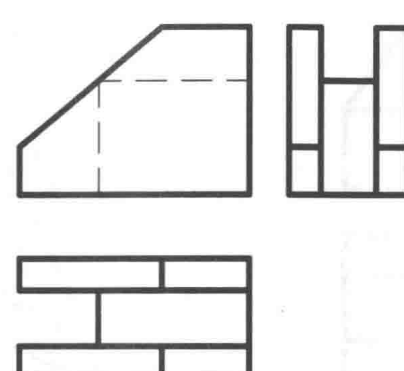
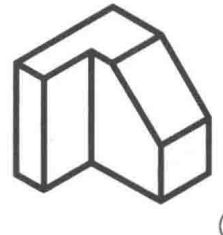
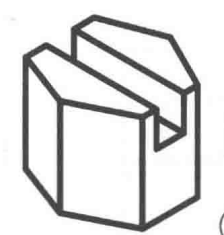
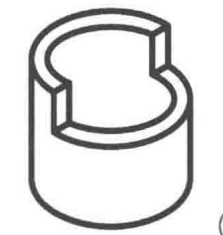
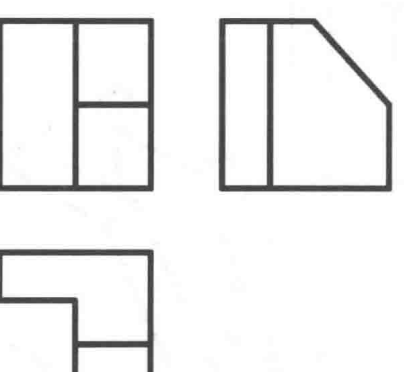
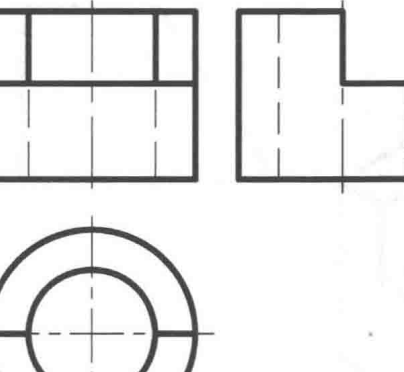
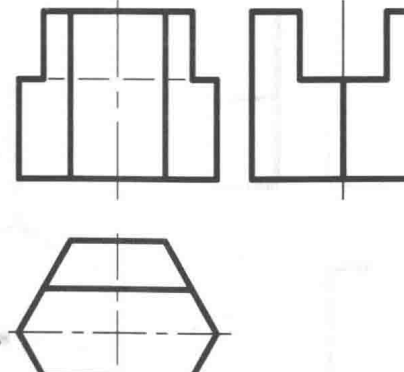
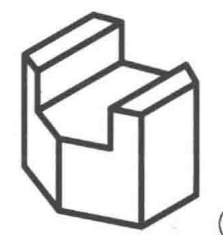
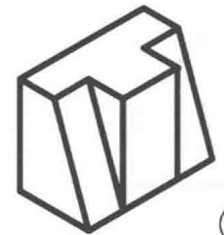
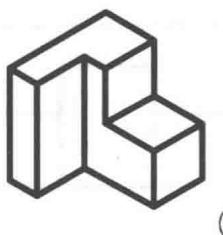
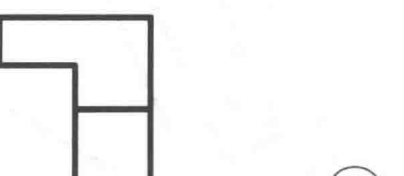

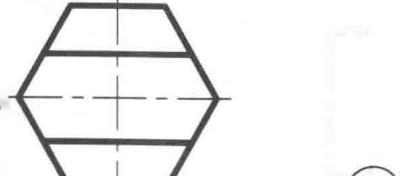
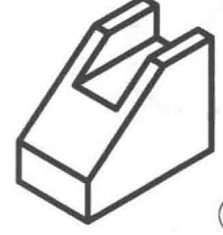
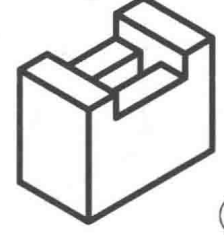
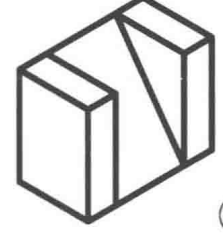
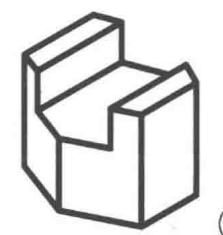
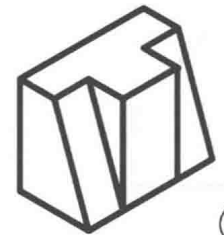
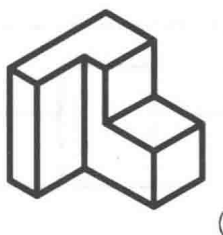
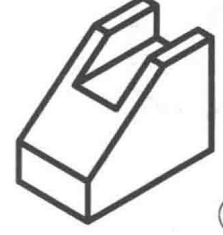
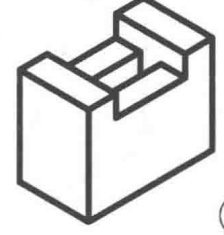
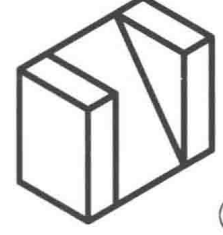
2-1 读投影图 看懂下列三面投影图，并在圆圈内填写对应轴测图号码。

班级

学号

姓名

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 <p>Top view: A rectangle with a diagonal line from the top-left to the bottom-right. Front view: A rectangle with a horizontal line near the bottom. Left side view: A rectangle with a vertical line near the left edge. Circle for answer: <input type="text"/></p>	 <p>Top view: A rectangle with a vertical line near the right edge. Front view: A rectangle with a vertical line near the right edge. Left side view: A rectangle with a diagonal line from the top-right to the bottom-left. Circle for answer: <input type="text"/></p>	 <p>Top view: A rectangle with a dashed diagonal line from the top-left to the bottom-right. Front view: A rectangle with a vertical line near the right edge. Left side view: A rectangle with a vertical line near the right edge. Circle for answer: <input type="text"/></p>	 <p>①</p>	 <p>②</p>	 <p>③</p>
 <p>Top view: A rectangle with a vertical line near the right edge. Front view: A rectangle with a vertical line near the right edge. Left side view: A rectangle with a vertical line near the left edge. Circle for answer: <input type="text"/></p>	 <p>Top view: A rectangle with a vertical line near the right edge. Front view: A rectangle with a vertical line near the right edge. Left side view: A rectangle with a vertical line near the right edge. Circle for answer: <input type="text"/></p>	 <p>Top view: A rectangle with a dashed diagonal line from the top-left to the bottom-right. Front view: A rectangle with a vertical line near the right edge. Left side view: A rectangle with a vertical line near the right edge. Circle for answer: <input type="text"/></p>	 <p>④</p>	 <p>⑤</p>	 <p>⑥</p>
 <p>Top view: A rectangle with a vertical line near the right edge. Front view: A rectangle with a vertical line near the right edge. Left side view: A rectangle with a vertical line near the left edge. Circle for answer: <input type="text"/></p>	 <p>Top view: A rectangle with a vertical line near the right edge. Front view: A rectangle with a vertical line near the right edge. Left side view: A rectangle with a vertical line near the right edge. Circle for answer: <input type="text"/></p>	 <p>Top view: A rectangle with a vertical line near the right edge. Front view: A rectangle with a vertical line near the right edge. Left side view: A rectangle with a vertical line near the right edge. Circle for answer: <input type="text"/></p>	 <p>⑦</p>	 <p>⑧</p>	 <p>⑨</p>
 <p>Top view: A rectangle with a vertical line near the right edge. Front view: A rectangle with a vertical line near the right edge. Left side view: A rectangle with a vertical line near the left edge. Circle for answer: <input type="text"/></p>	 <p>Top view: A rectangle with a vertical line near the right edge. Front view: A rectangle with a vertical line near the right edge. Left side view: A rectangle with a vertical line near the right edge. Circle for answer: <input type="text"/></p>	 <p>Top view: A rectangle with a vertical line near the right edge. Front view: A rectangle with a vertical line near the right edge. Left side view: A rectangle with a vertical line near the right edge. Circle for answer: <input type="text"/></p>	 <p>⑩</p>	 <p>⑪</p>	 <p>⑫</p>
			 <p>⑬</p>	 <p>⑭</p>	 <p>⑮</p>
			 <p>⑯</p>	 <p>⑰</p>	 <p>⑱</p>

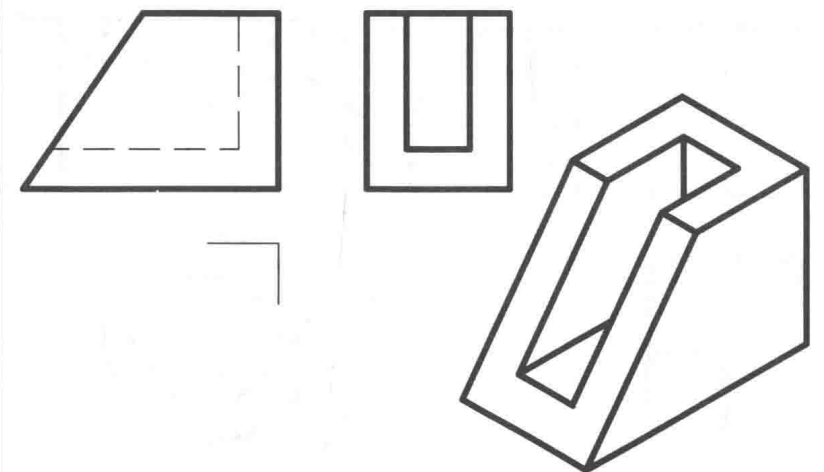
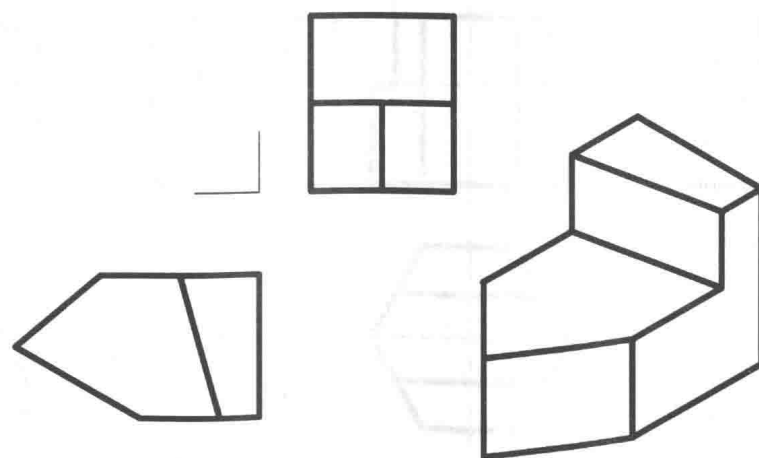
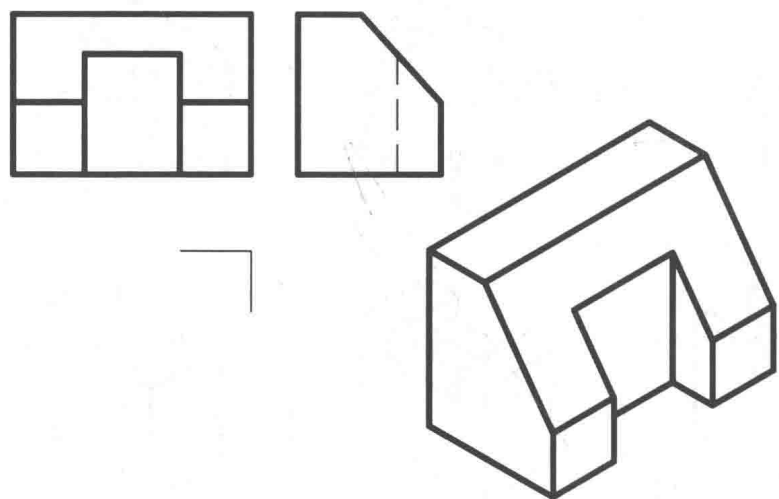
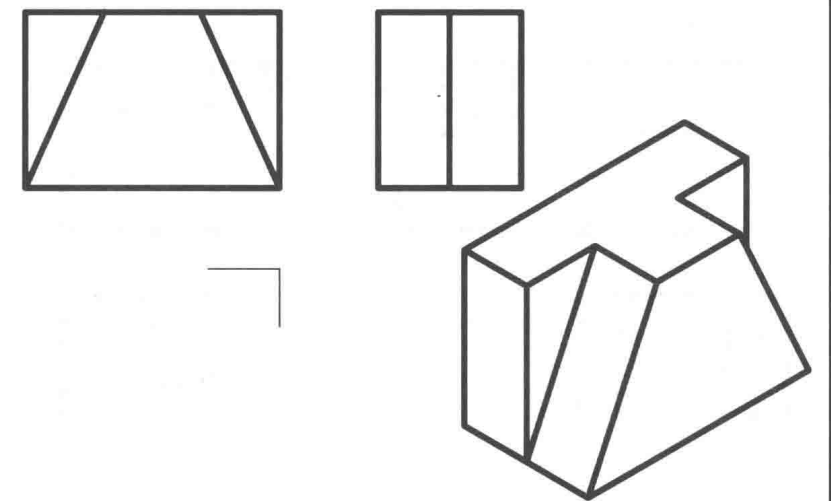
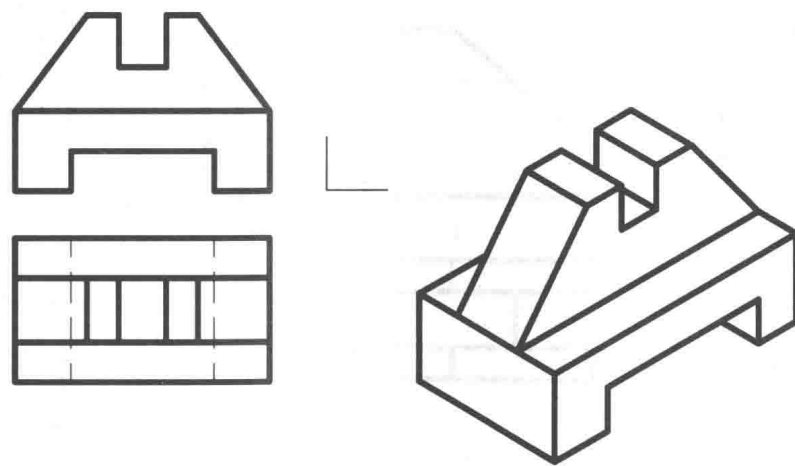
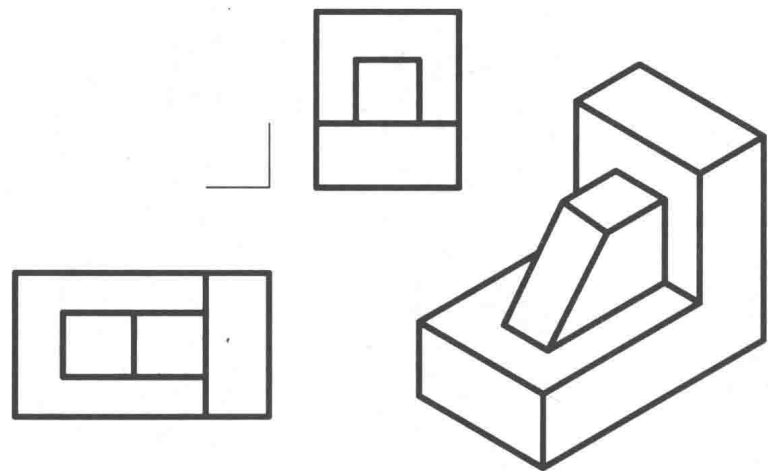
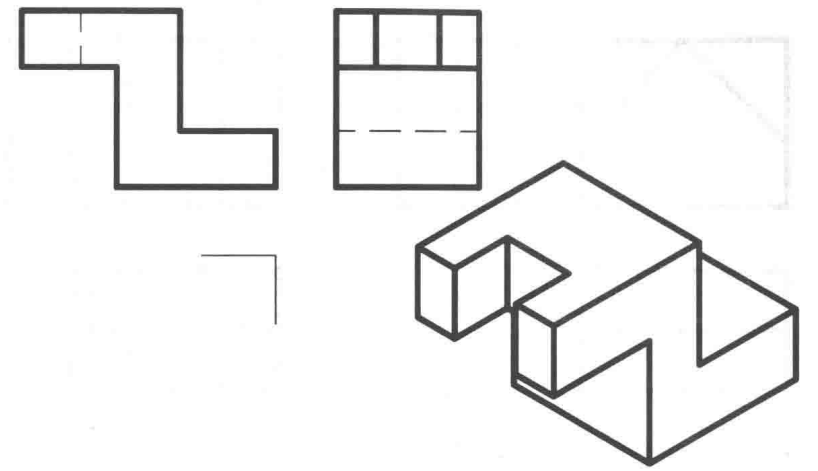
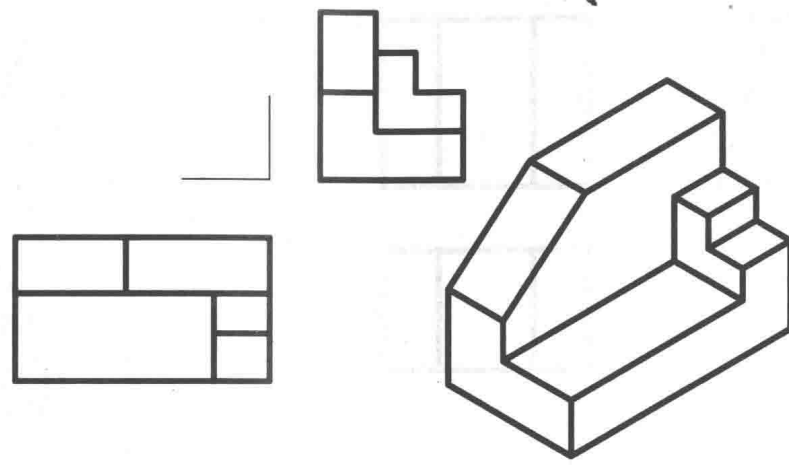
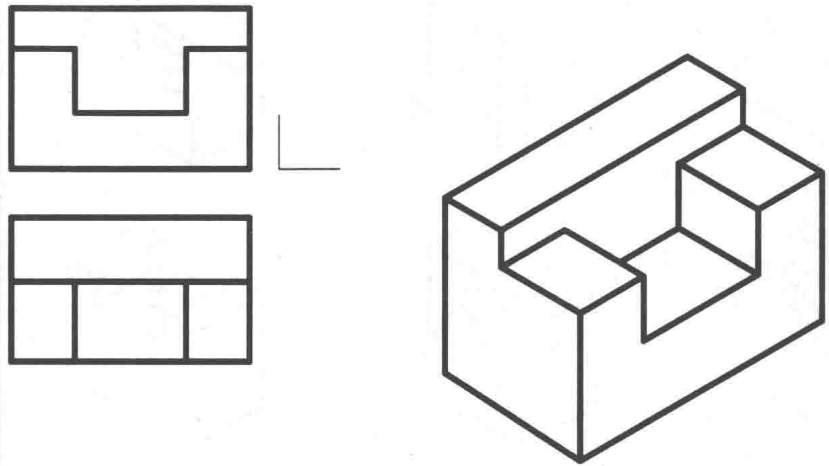
2-2 参看轴测图，补画第三投影。

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2-3 根据轴测图上的尺寸，在方格内徒手画出三视图。

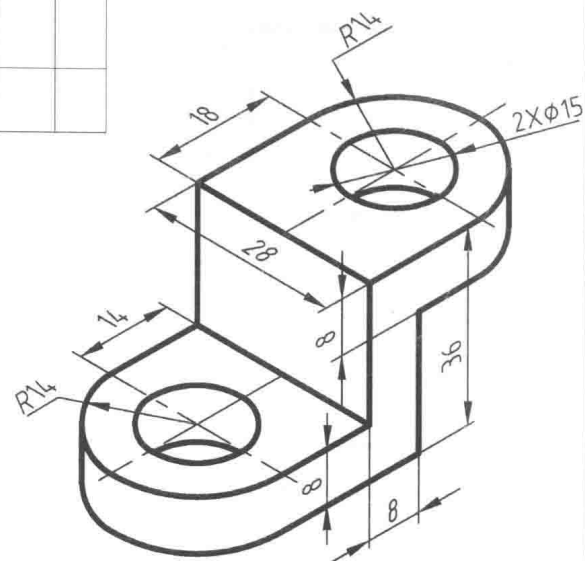
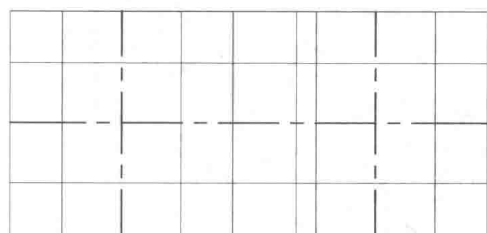
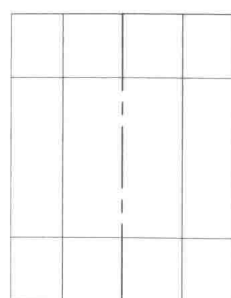
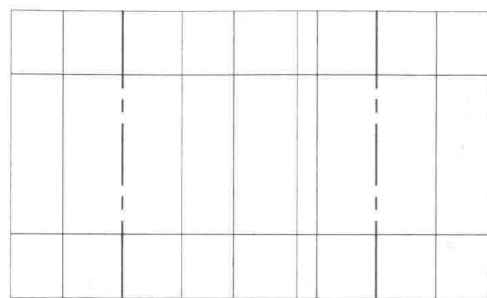
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学号

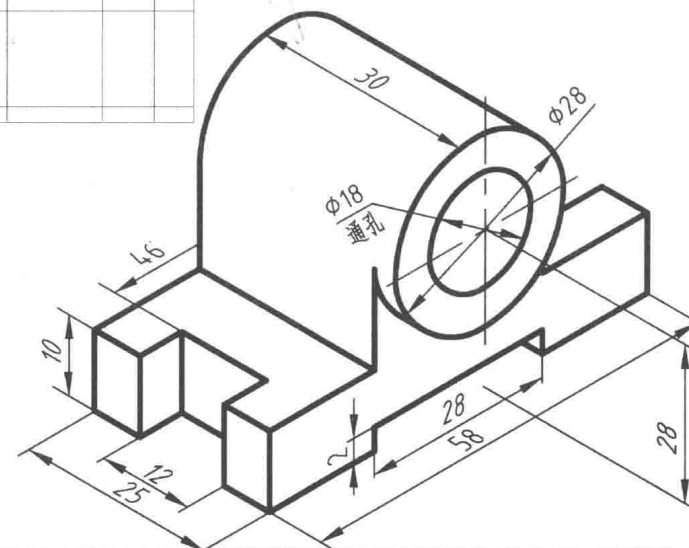
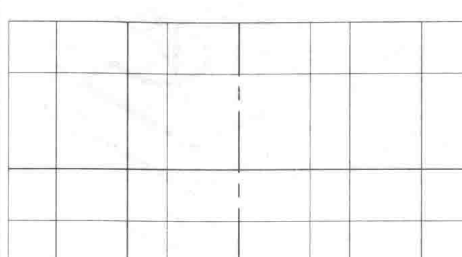
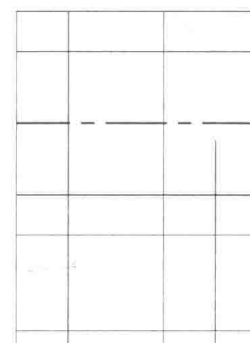
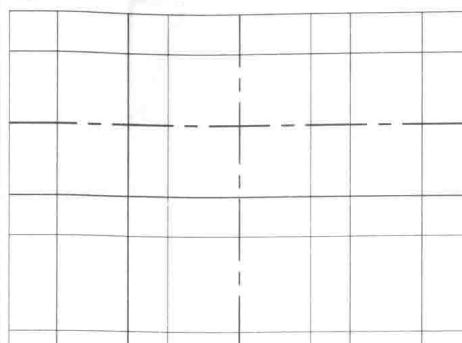
姓名

11

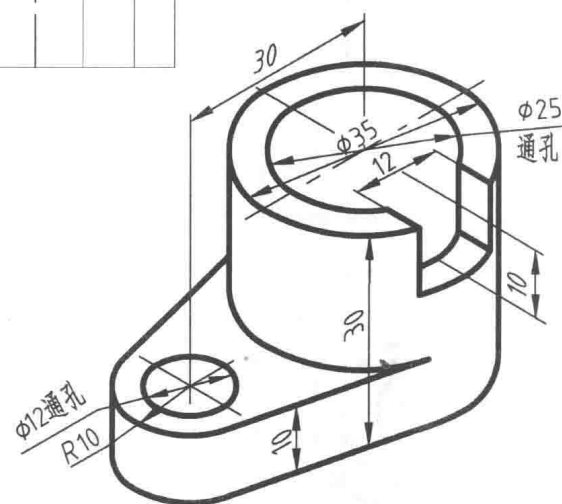
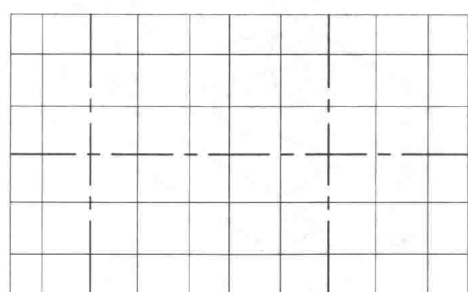
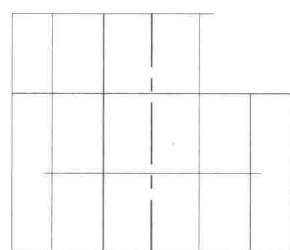
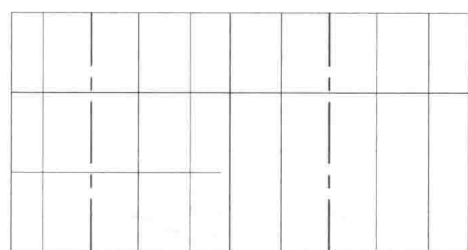
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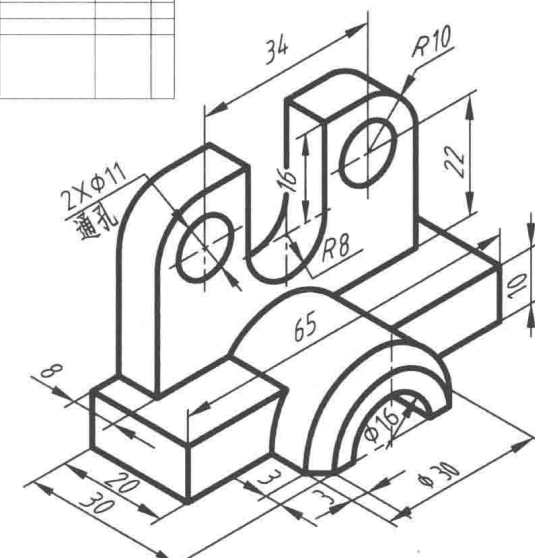
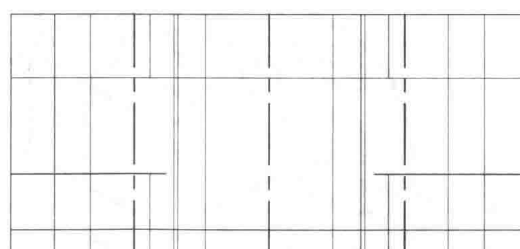
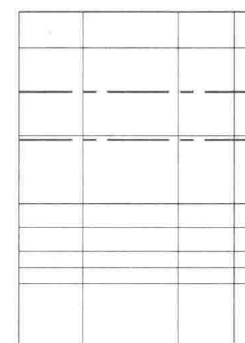
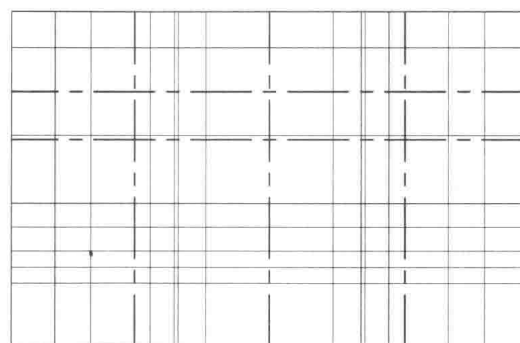
2.



3.



4.



2-4 根据轴测图上所给的尺寸, 用1:1的比例, 画出组合体的三视图。

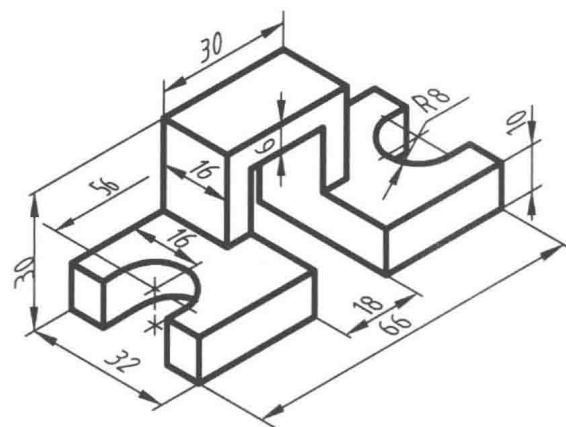
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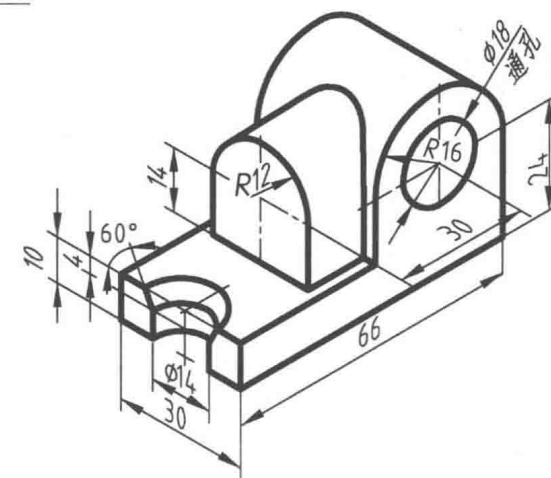
姓名

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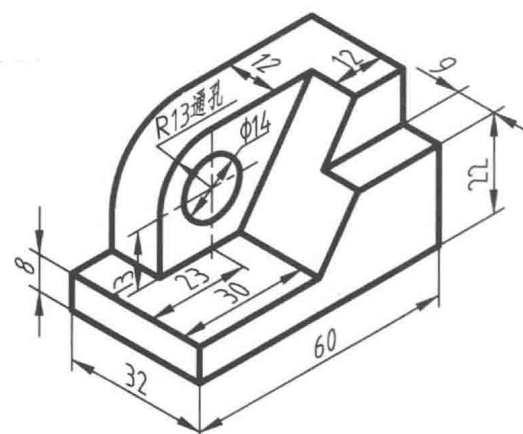
1.



2.



3.



4.

