

模块一 三视图绘制与识读

1.1 三视图绘制

1.1.1 制图的基本知识与技能

1. 汉字练习

机械图样汉字书写用长仿宋体应做到

□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□

字体端正笔画清楚排列整齐间隔均匀

□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□

校核审定比例姓名材料班级技术要求

□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□

2. 数字与字母练习

1 2 3 4 5 6 7 8 9 0 A B C D E F G H

□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□

I J K L M N O P Q R S T U V W X Y Z

□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□

a b c d e f g h i j k l m n o p q r s t u v w x y z

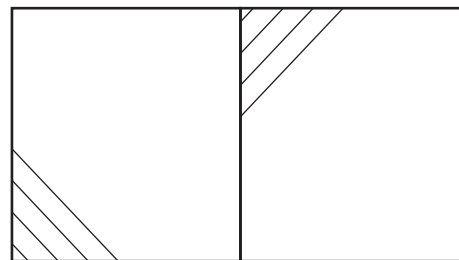
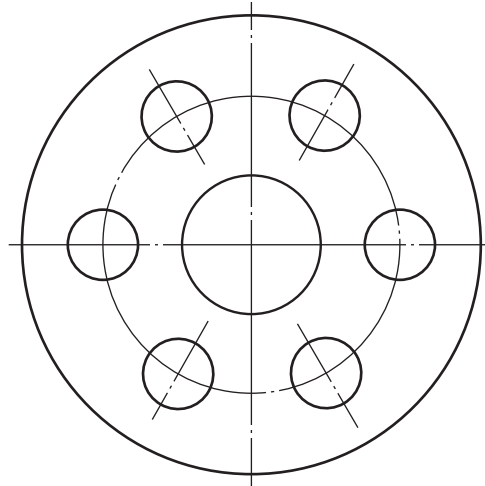
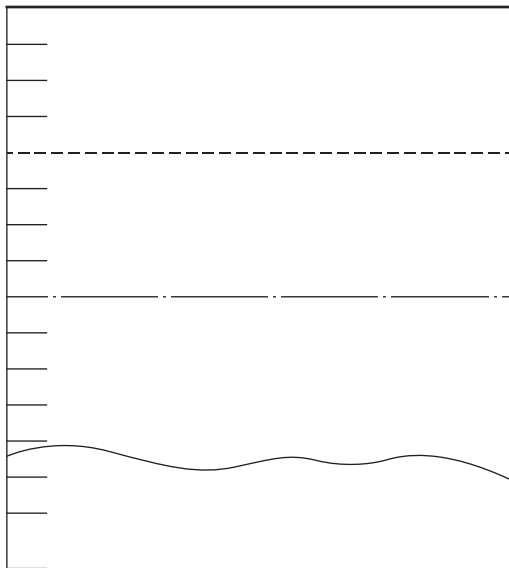
□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
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□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
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α β γ δ θ φ ω Ω

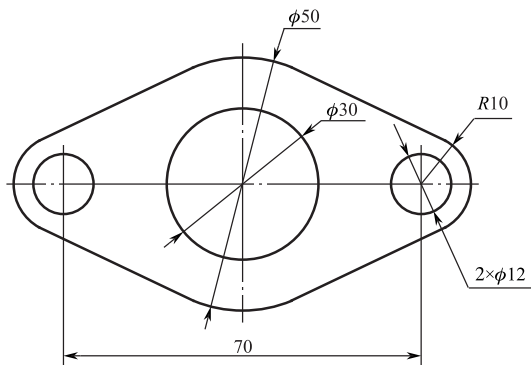
I II III IV V XX XII

在指定位置，照样补画直线、圆、斜线。

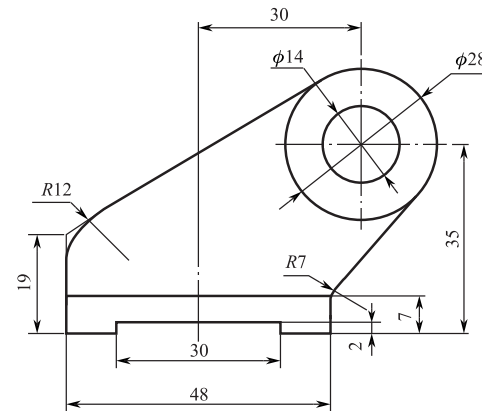


按 1 1 抄画下面的几何图形。

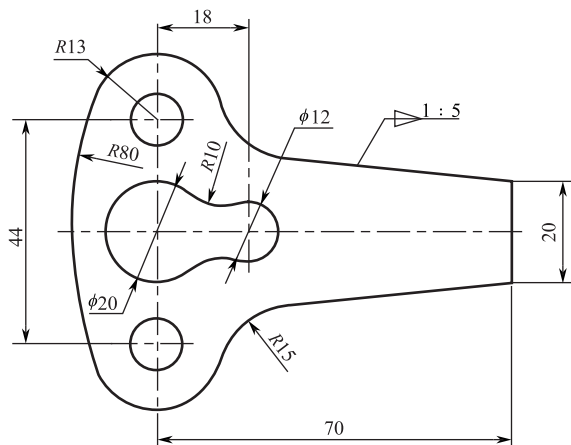
1.



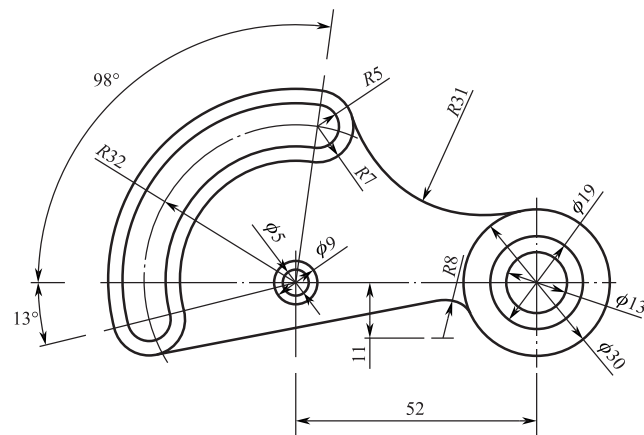
2.



3.

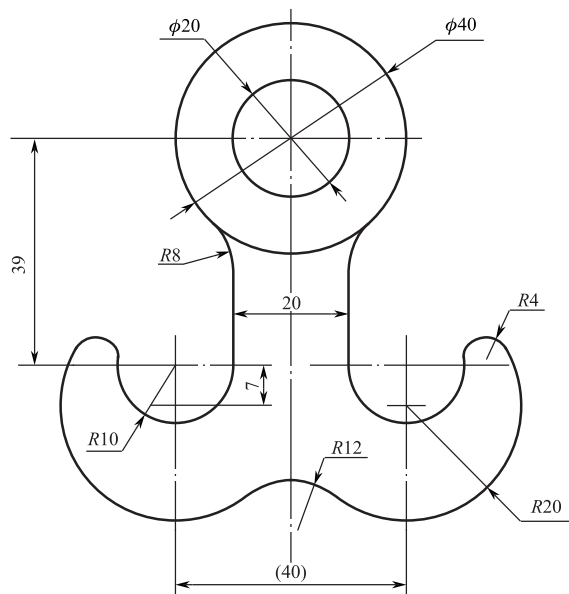


4.

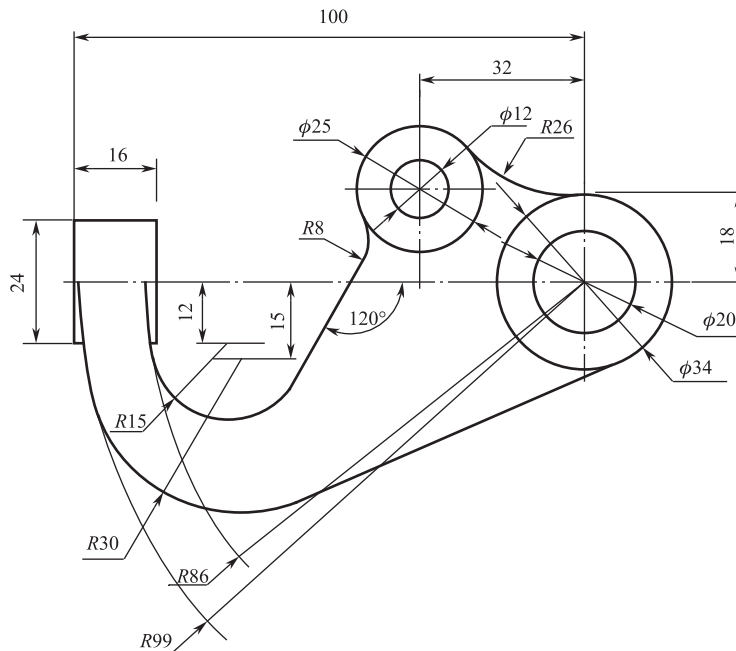


按 1 1 抄画下面的几何图形。

1.

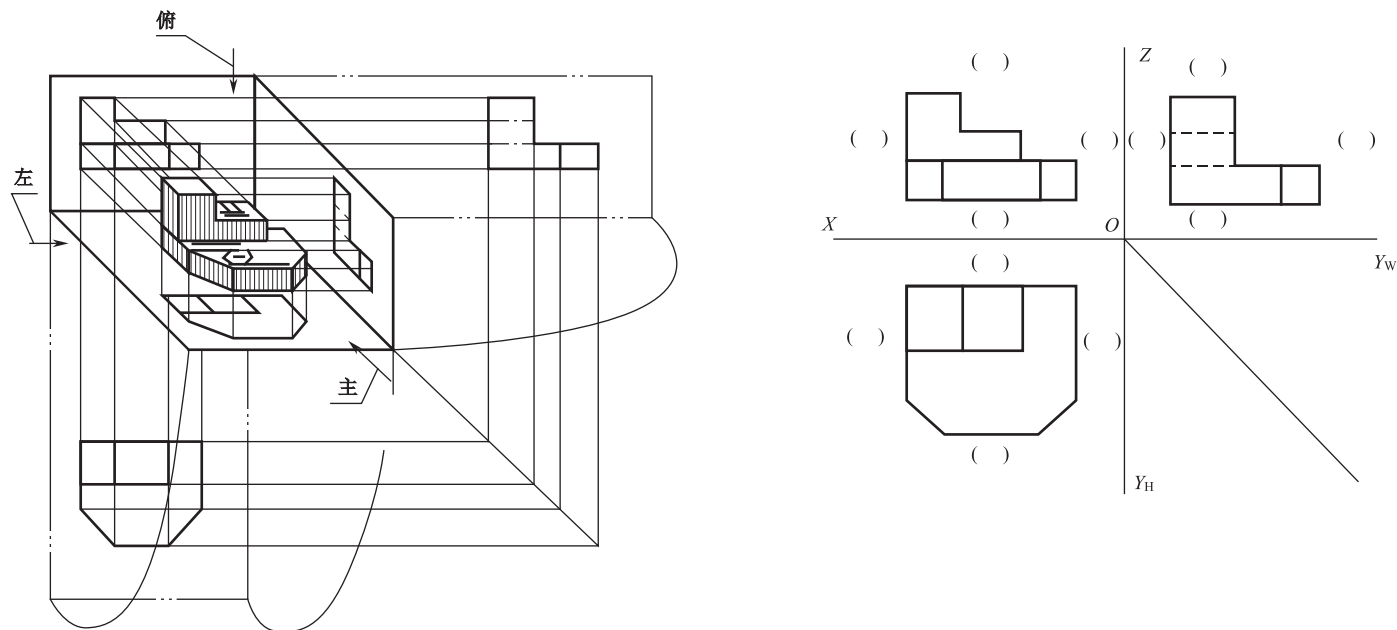


2.



1.1.2 三视图绘制

熟悉三视图的形成过程，说明三视图之间的投影关系和方位关系，在各个视图上分别注出表示方位。



视图之间的三等关系：

主、俯视图_____；主、左视图_____；俯、左视图_____。

视图与物体的六方位关系：

主视图反映物体的_____和_____；俯视图反映物体的_____和_____；左视图反映物体的_____和_____。

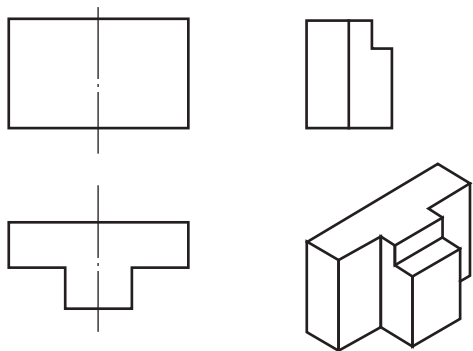
俯、左视图，远离主视图一侧表示物体_____面，靠近主视图一侧表示物体_____面。

分析下列三视图，找出其对应的轴测图，并在轴测图的圆圈内填上对应三视图的编号。

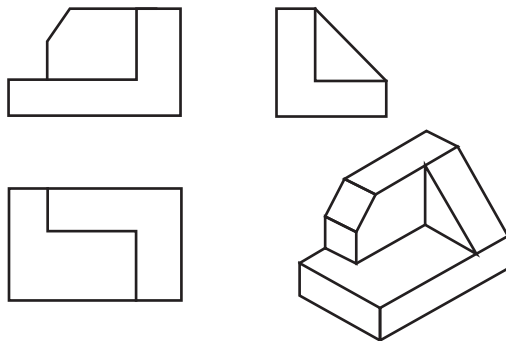
<p>1.</p>	<p>2.</p>	<p>3.</p>	<p>4.</p>
<p>5.</p>	<p>6.</p>	<p>7.</p>	<p>8.</p>
<p>9.</p>	<p>10.</p>		

根据轴测图补画三视图中所缺的图线。

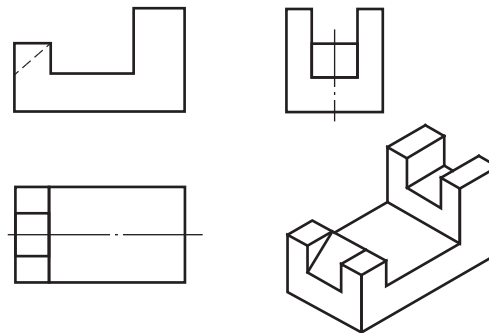
1.



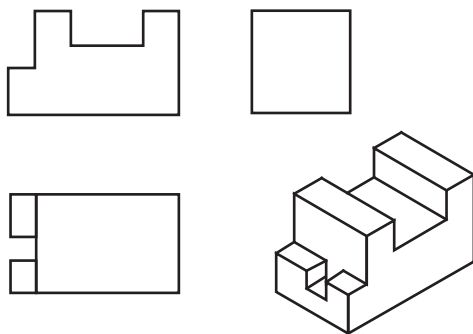
2.



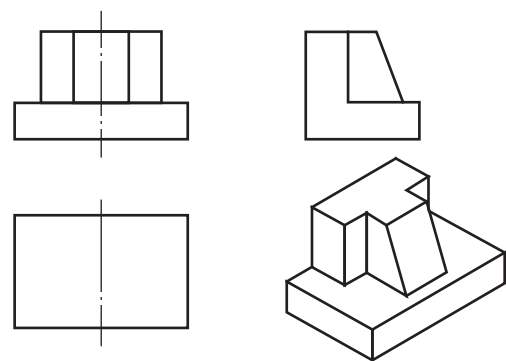
3.



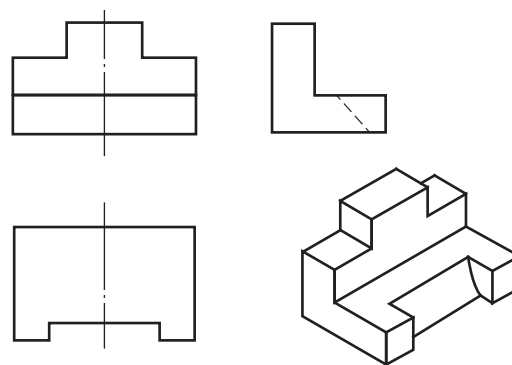
4.



5.

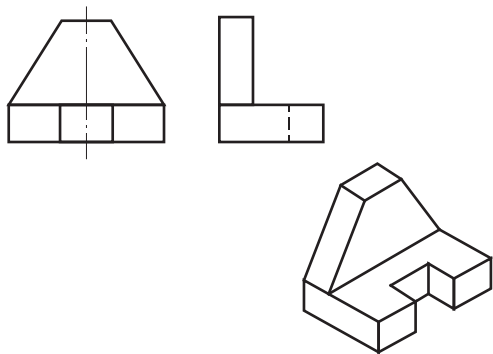


6.

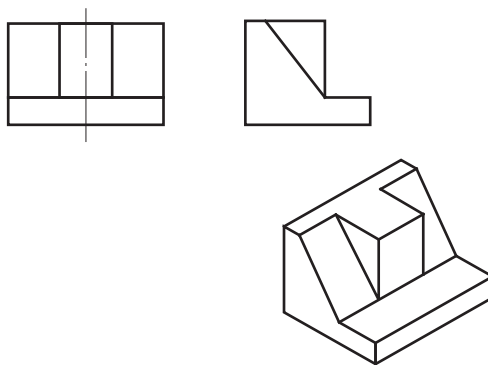


根据轴测图和两面视图，补画第三视图。

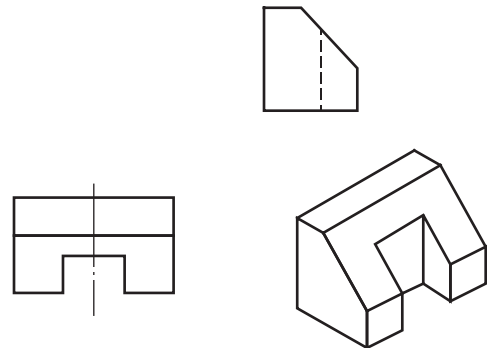
1.



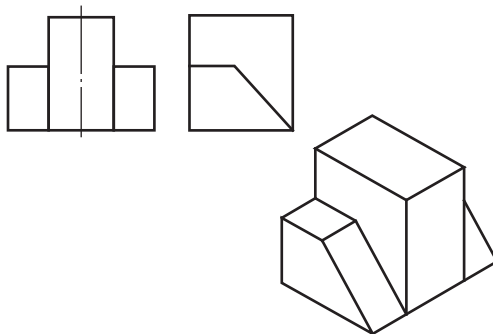
2.



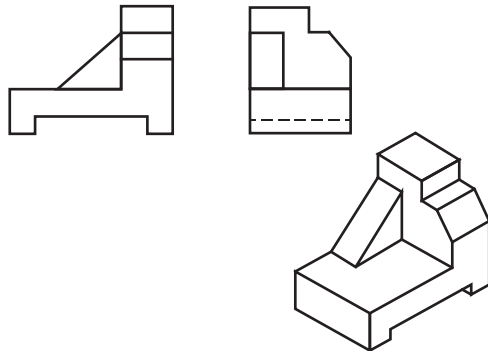
3.



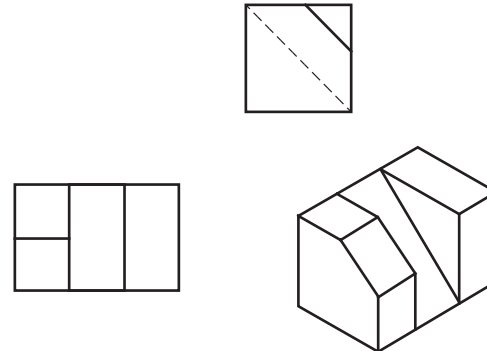
4.



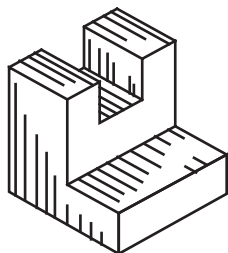
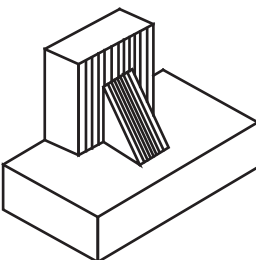
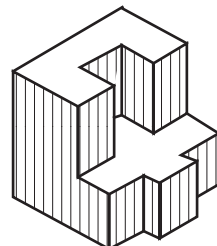
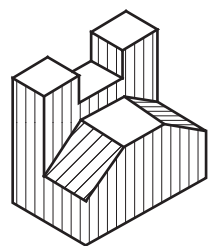
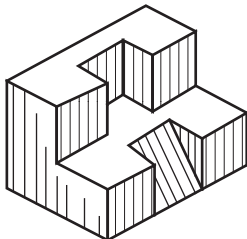
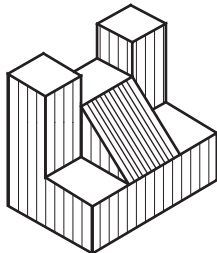
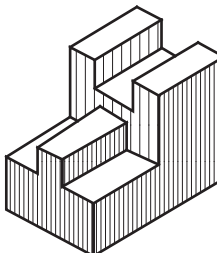
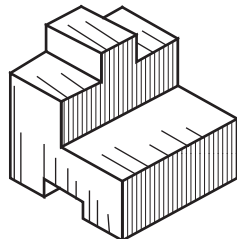
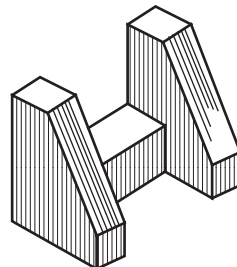
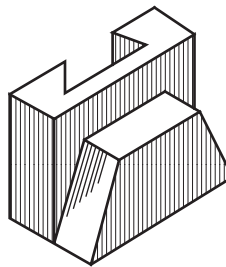
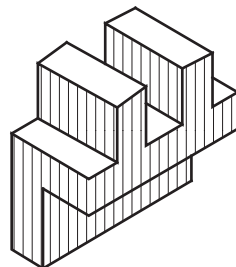
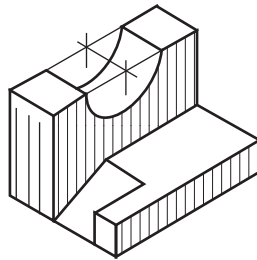
5.



6.

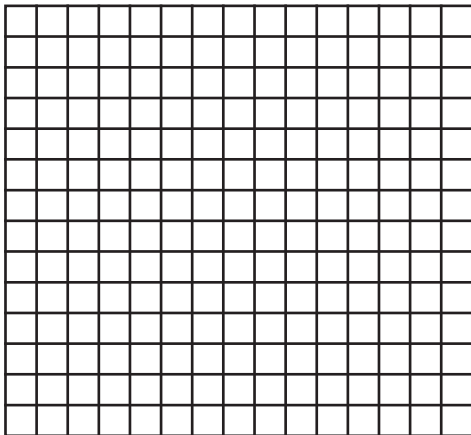
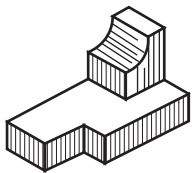


根据轴测图或模型画三视图（图幅、比例自定，不标注尺寸）。

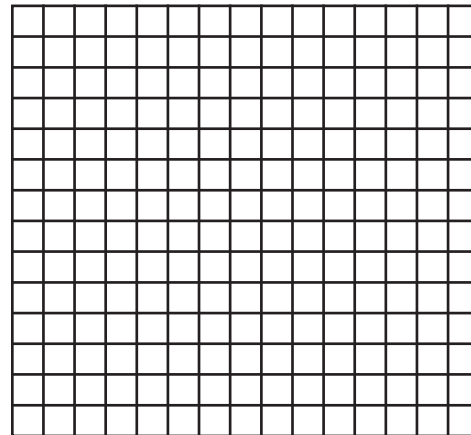
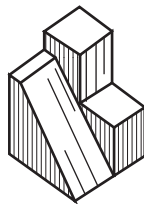
<p>1.</p> 	<p>2.</p> 	<p>3.</p> 	<p>4.</p> 
<p>5.</p> 	<p>6.</p> 	<p>7.</p> 	<p>8.</p> 
<p>9.</p> 	<p>10.</p> 	<p>11.</p> 	<p>12.</p> 

根据轴测图，徒手画三视图。

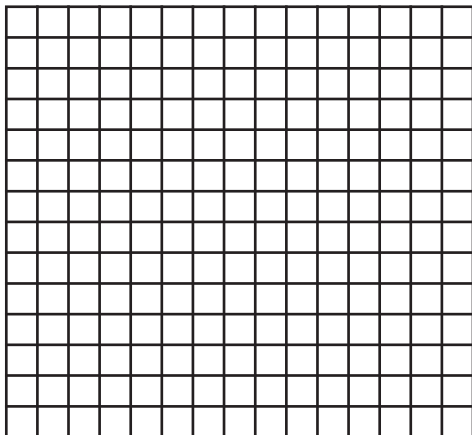
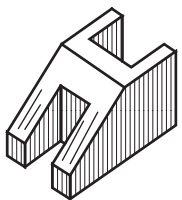
1.



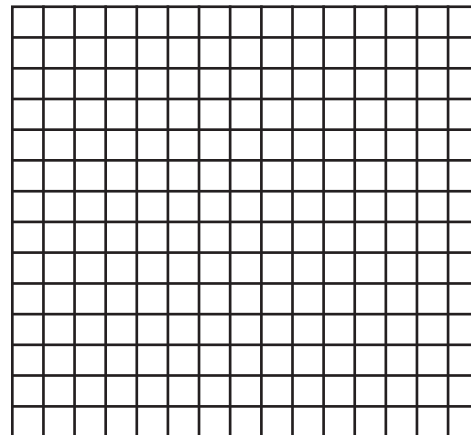
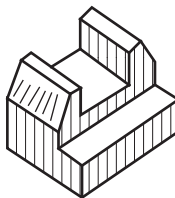
2.



3.



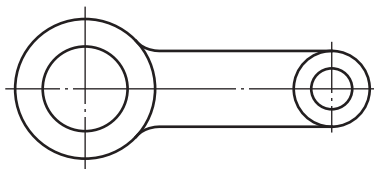
4.



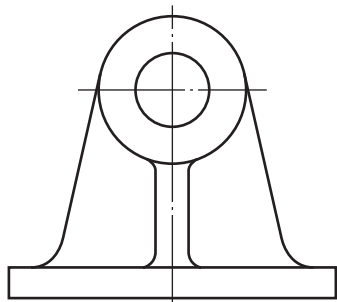
1.1.3 尺寸标注

1. 按所给图形 1:1 度量后标注尺寸 (取整数)

(1)

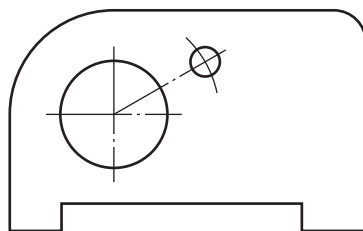
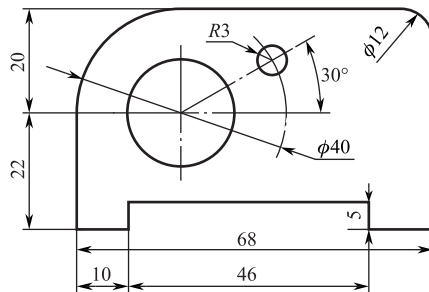


(2)

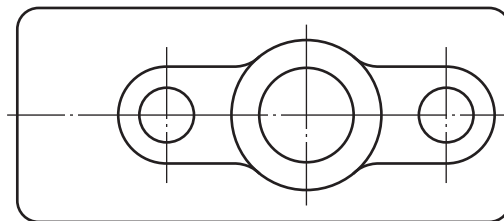
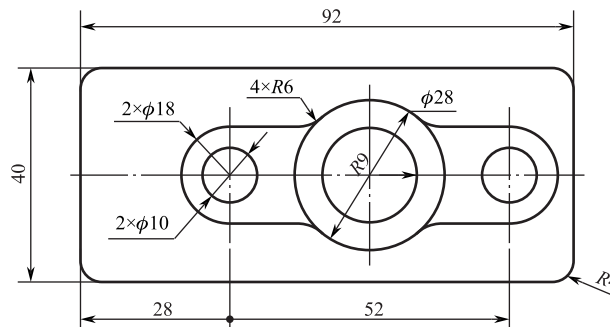


2. 将下列左图中尺寸标注的错误圈出, 将正确的标在下图上。

(1)

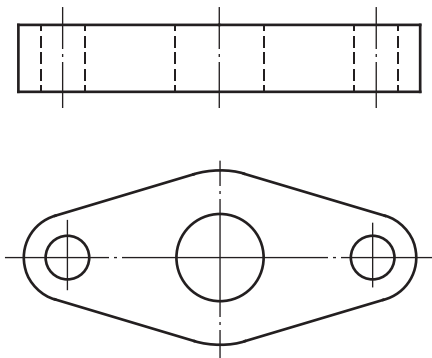


(2)

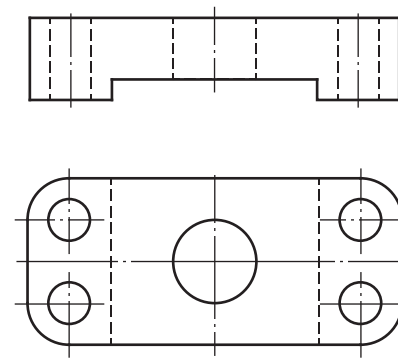


完成下面组合体的尺寸标注（尺寸数值在图中 1 : 1 量取，取整数）。

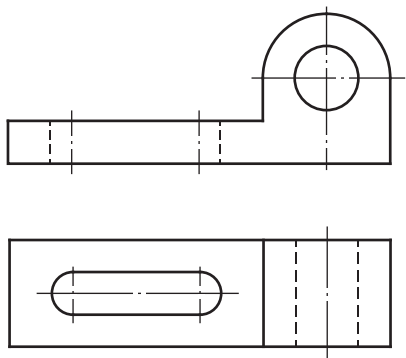
1.



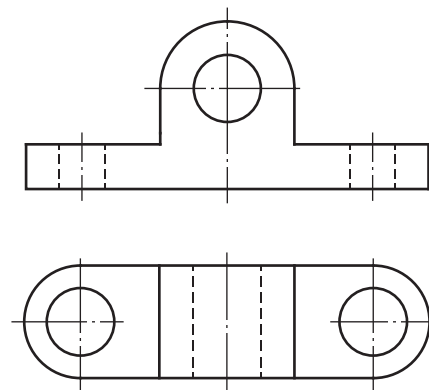
2.



3.

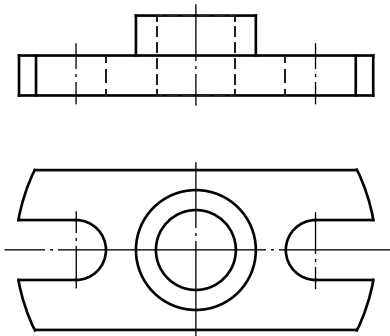


4.

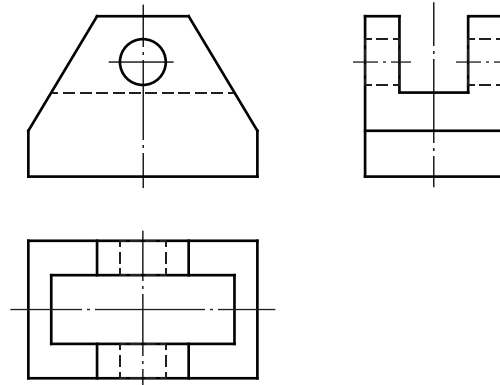


完成下面组合体的尺寸标注（尺寸数值在图中 1 : 1 量取，取整数）。

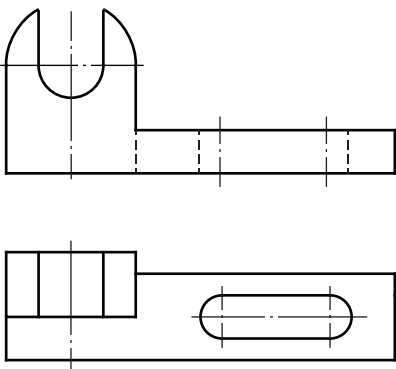
1.



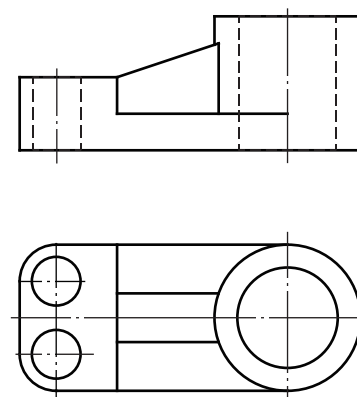
2.



3.

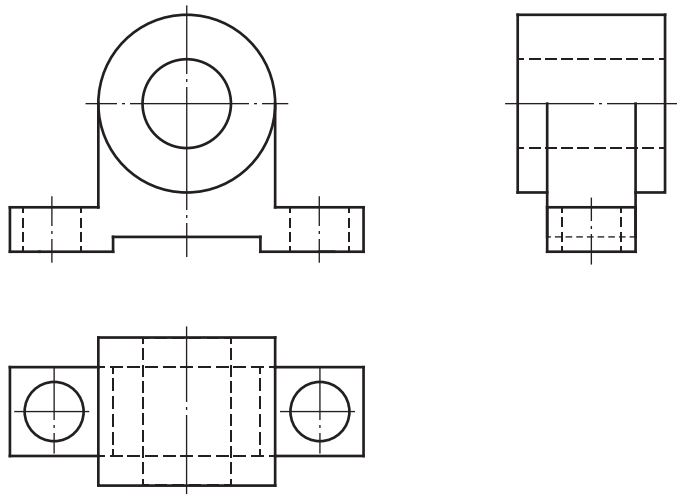


4.

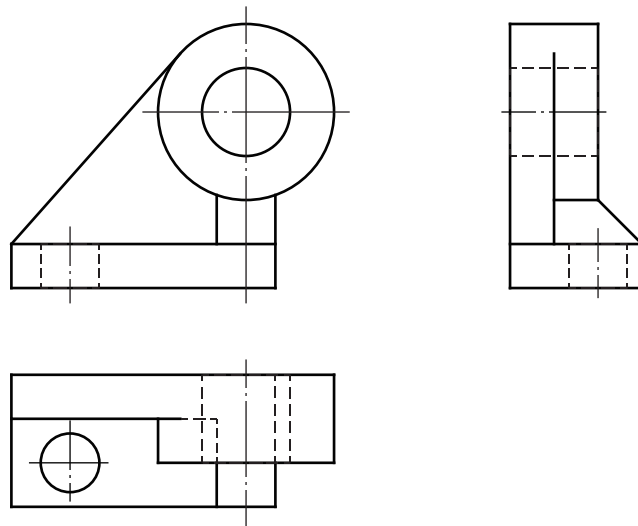


完成下面组合体的尺寸标注（尺寸数值在图中 1 : 1 量取，取整数）。

1.

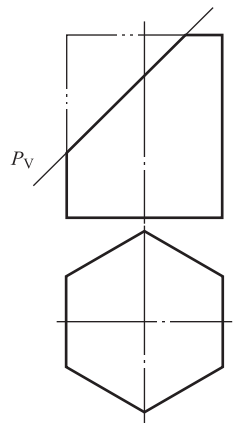


2.

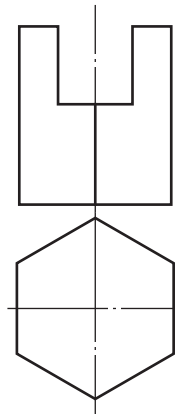


1.1.4 截交线绘图

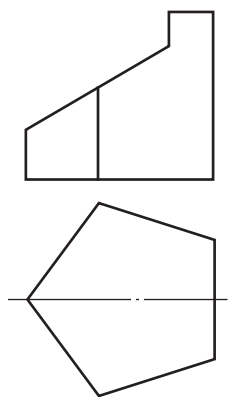
1. 请绘制六棱柱体被平面 P_V 截切后的水平投影、侧面投影。



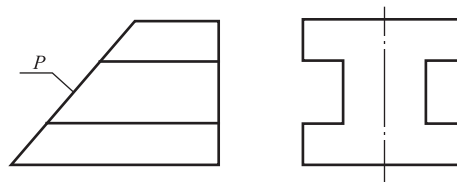
2. 补画六棱柱体切口的水平投影，并画出侧面投影。



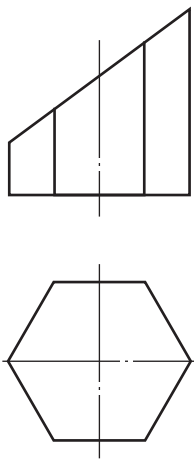
3. 补画五棱柱体切口的水平投影、侧面投影。



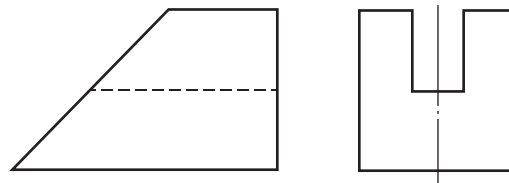
4. 请绘制下图所示物体被正垂面 P 截切后的水平投影。



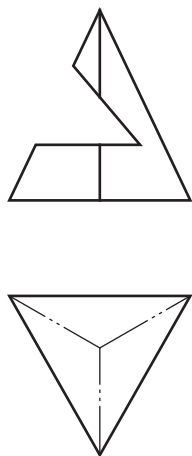
1. 补画正六棱柱被截切后的左视图。



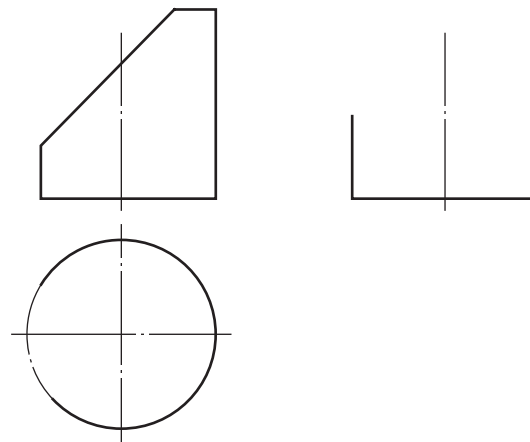
2. 补画开槽长方体被截切后的俯视图。



3. 完成三棱锥被截切后的俯视图和左视图。

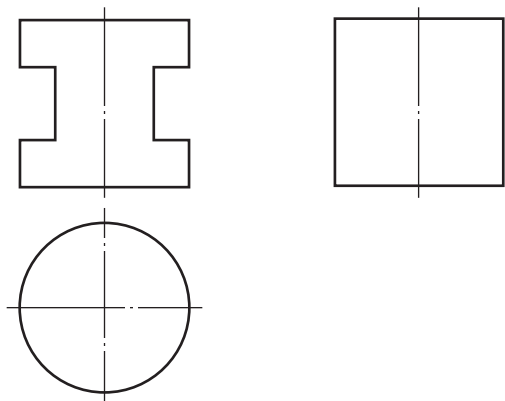


4. 完成圆柱体被截切后的俯视图和左视图。

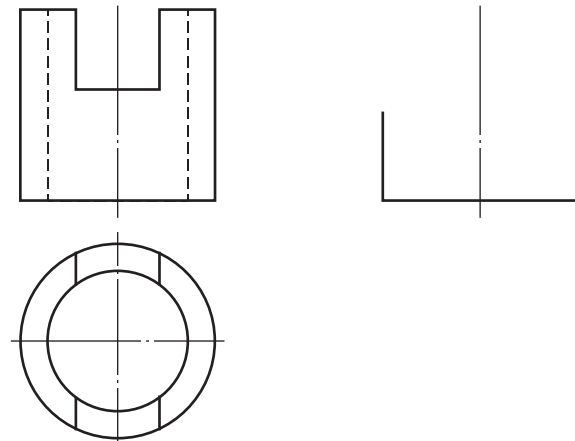


补全各基本体被截切后的水平投影和侧面投影。

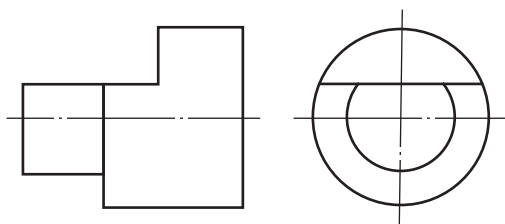
1.



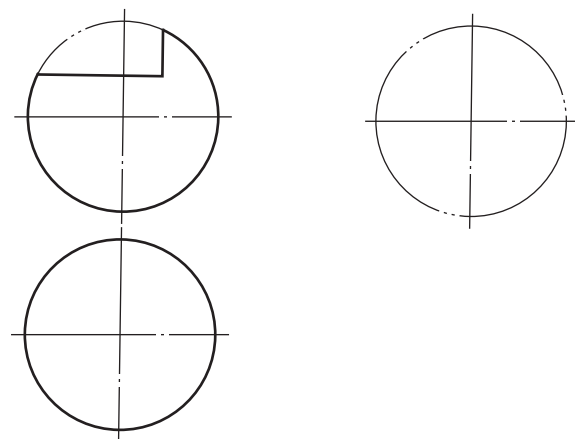
2.



3.

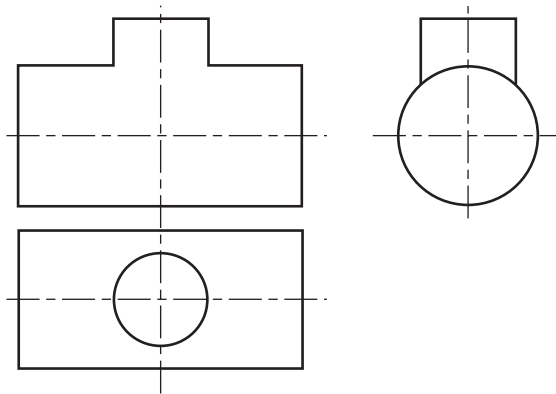


4.

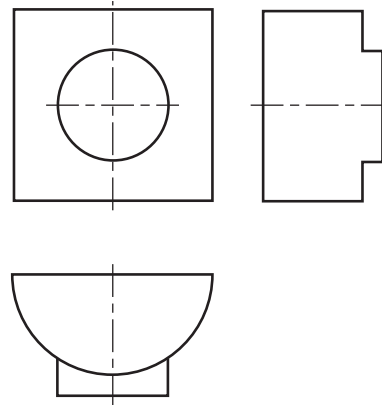


1.1.5 相贯线绘图

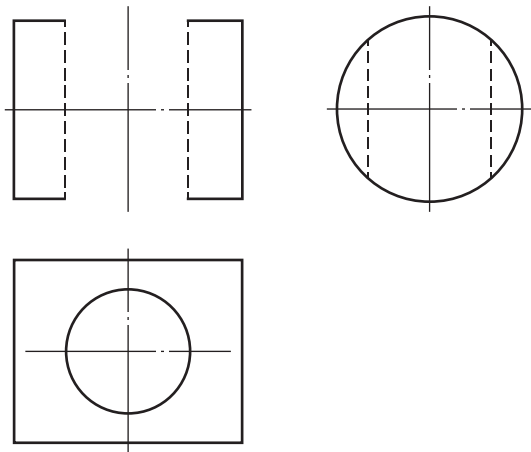
1. 请绘制两圆柱体的相贯线。



2. 分析曲面立体表面的交线，补全由两圆柱相贯的各投影。



3. 分析曲面立体表面的交线，补全由圆柱穿孔的各投影。



4. 画出由圆柱开槽后的正面投影。

