

全国中等职业技术学校机械类专业

机械制图(第四版)习题集参考答案

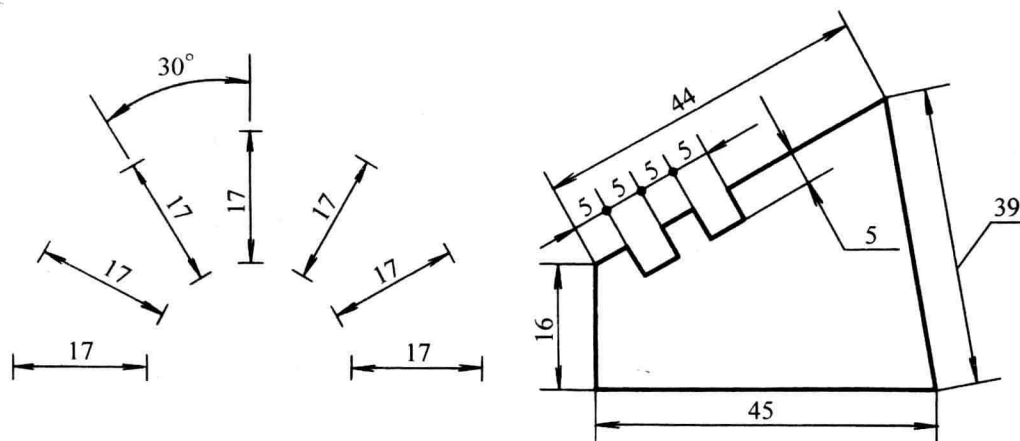
果连成 编写

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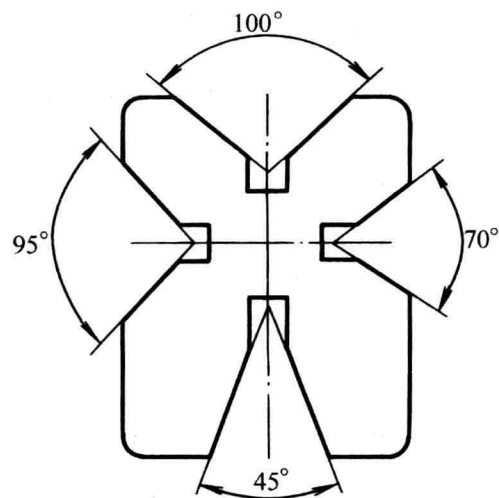
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1-2 尺寸标注练习 (需标数值从图中量取, 取整数)

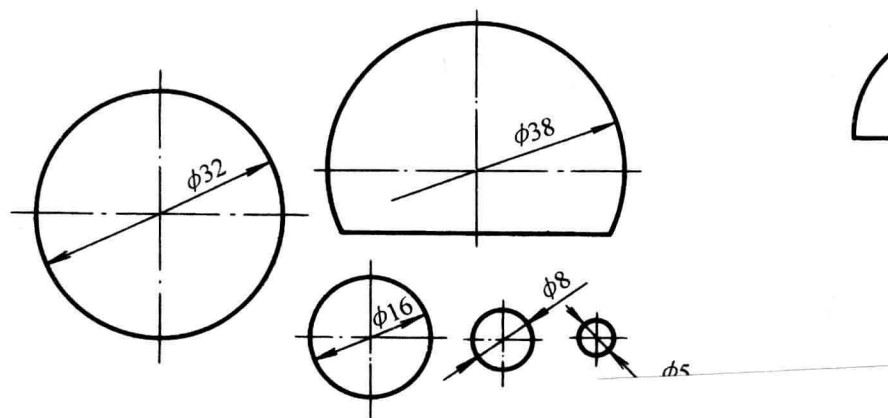
1. 线性尺寸



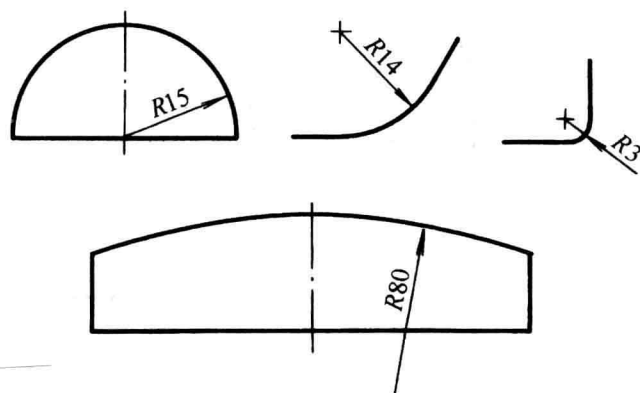
2. 角度尺寸



3. 圆的直径

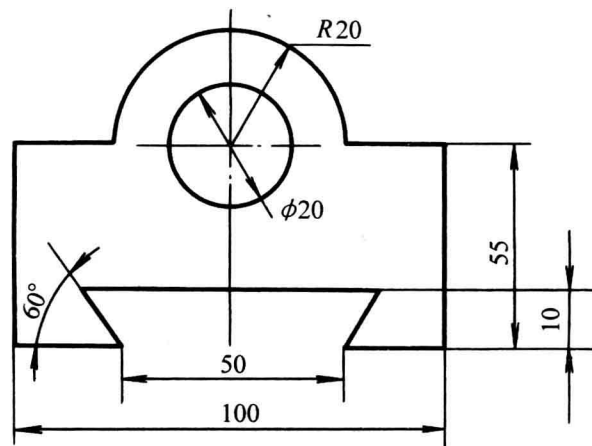
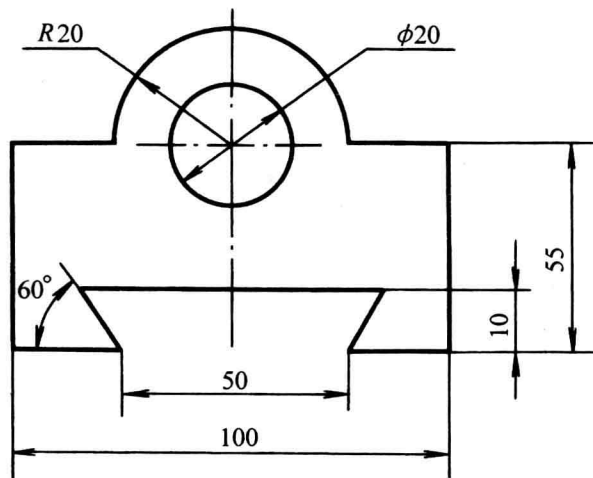


4. 圆弧半径

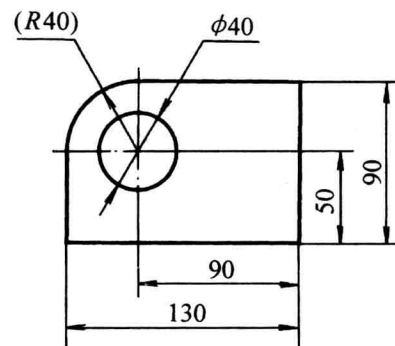
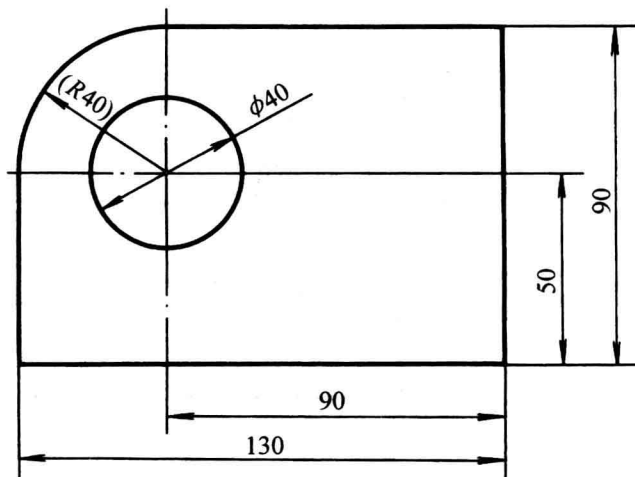


1-2 (续)

5. 右图中尺寸标注有错误, 在左图上正确标注尺寸

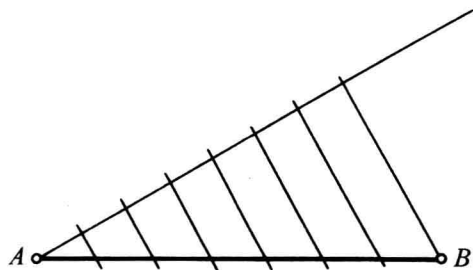


6. 参照右图所示图形, 用 1:2 比例在指定位置画出图形, 并标注尺寸

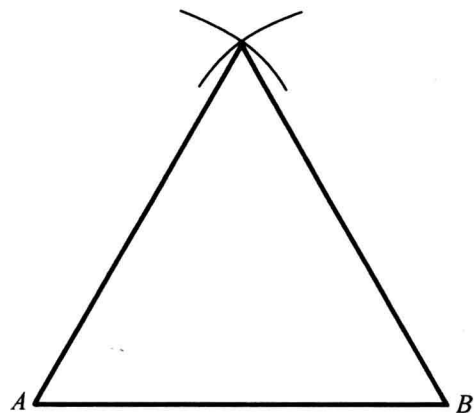


1-3 基本作图练习

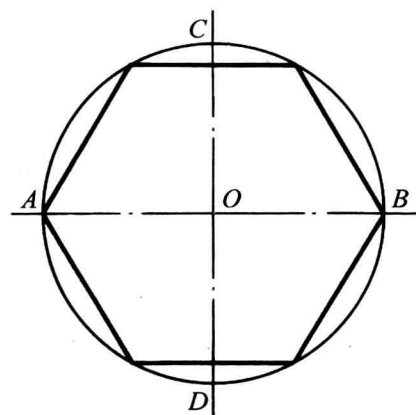
1. 将线段 AB 七等分



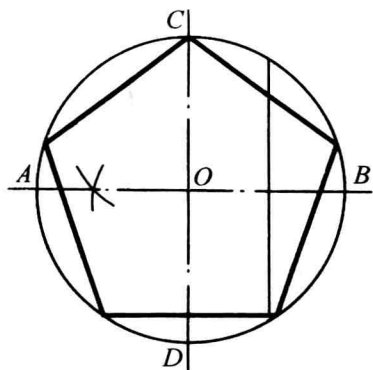
2. 以 AB 为底边作正三角形



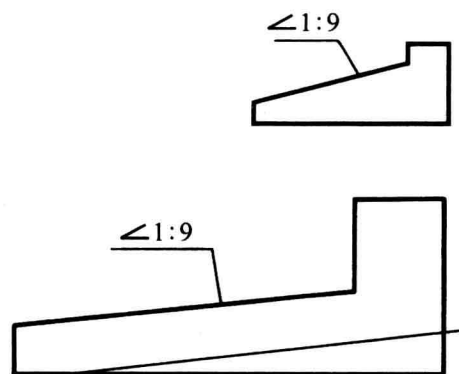
3. 作圆内接正六边形



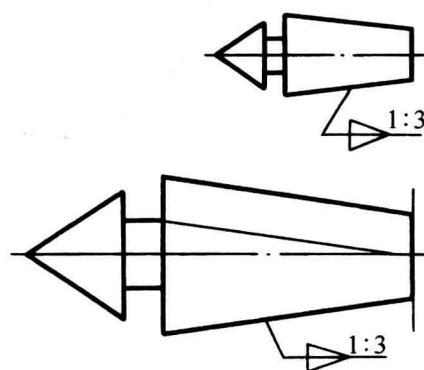
4. 作圆内接正五边形



5. 参照右上角示意图, 作 1:9 斜度图形

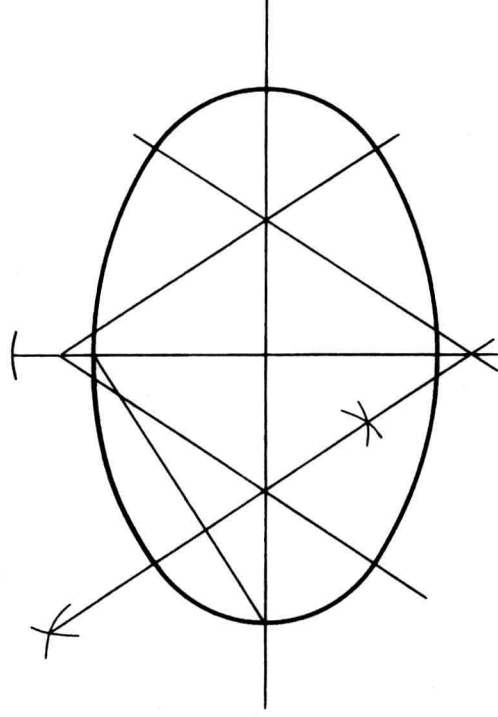


6. 参照右上角示意图, 作 1:3 锥度图形



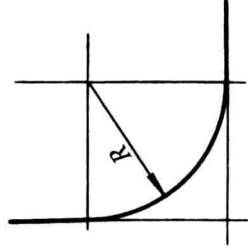
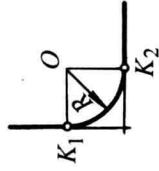
1-4 椭圆、圆弧连接

1. 用近似画法作椭圆 (长轴 70 mm, 短轴 45 mm)



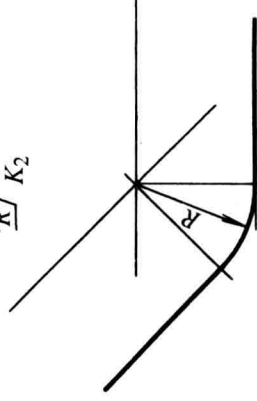
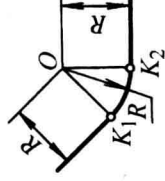
2. 参照图例用给定的尺寸作圆弧连接

(1)



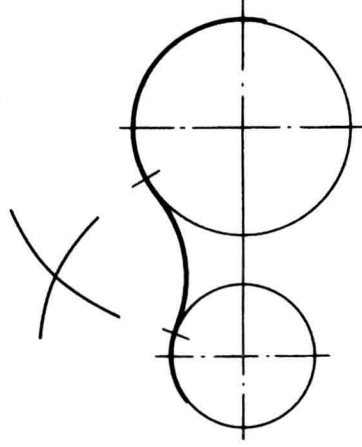
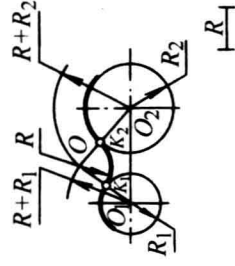
R

(2)

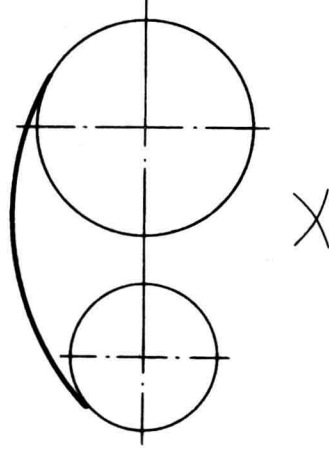
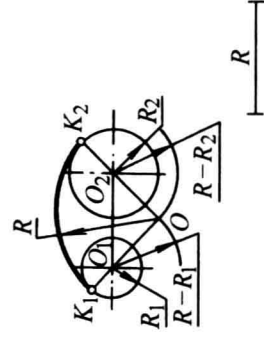


R

(3)

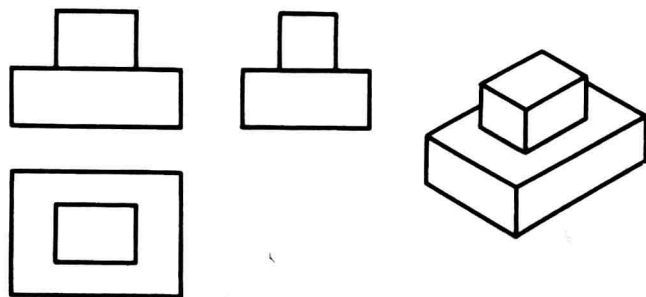


(4)



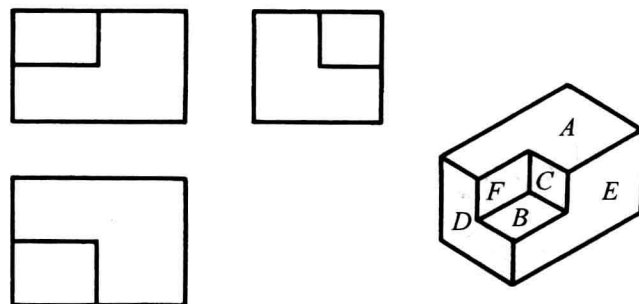
2-1 根据轴测图，补画三视图中漏画的图线，并填空回答问题

1.



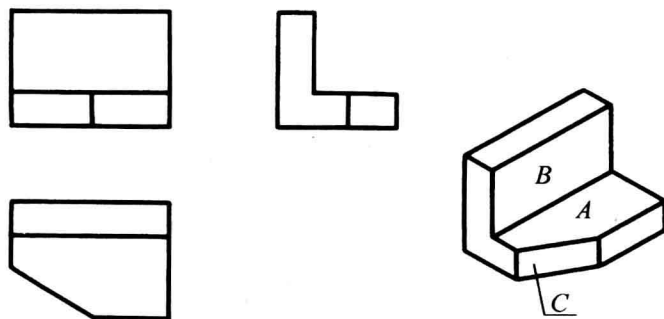
主视图与俯视图长 对正。
主视图与左视图高 平齐。
俯视图与左视图宽 相等。

2.



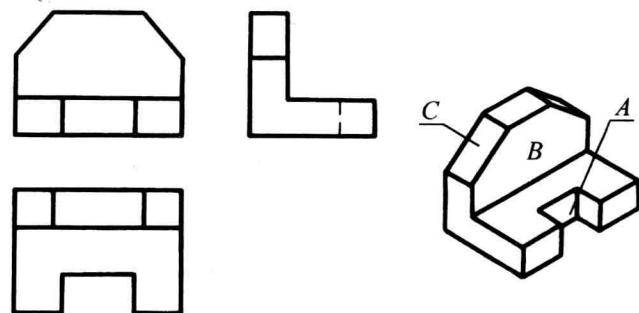
比较上下：A 面在 上，B 面在 下。
比较左右：C 面在 右，D 面在 左。
比较前后：E 面在 前，F 面在 后。

3.



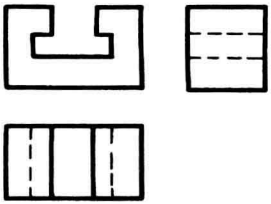
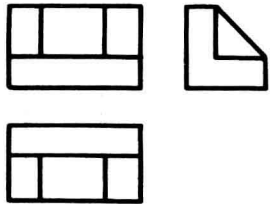
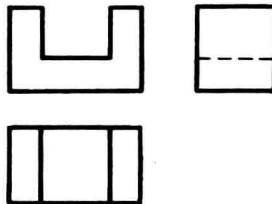
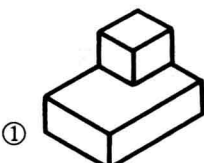
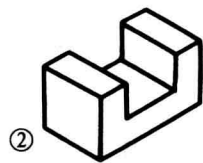
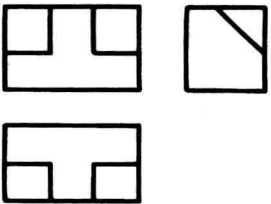
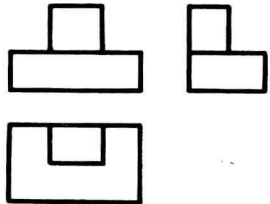
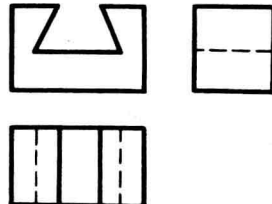
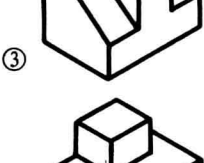
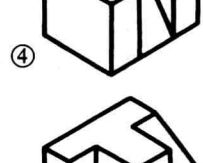
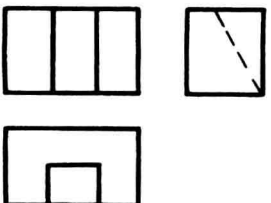
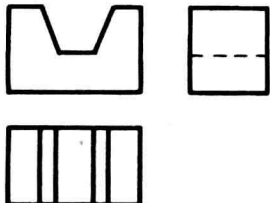
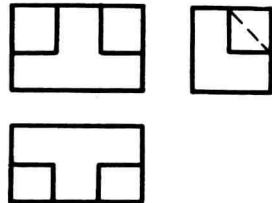
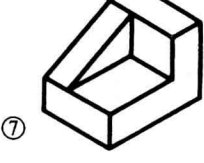
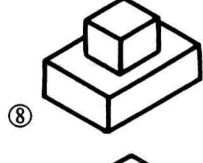
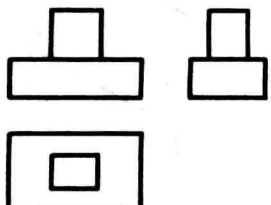
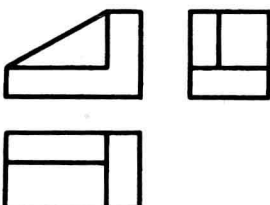
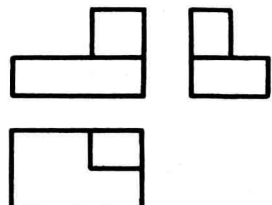
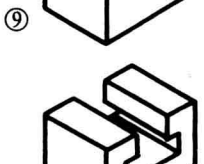
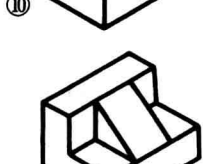
A 面平行于 H 面。
B 面平行于 V 面。
C 面垂直于 H 面，在 H 面投影积聚成直线。

4.



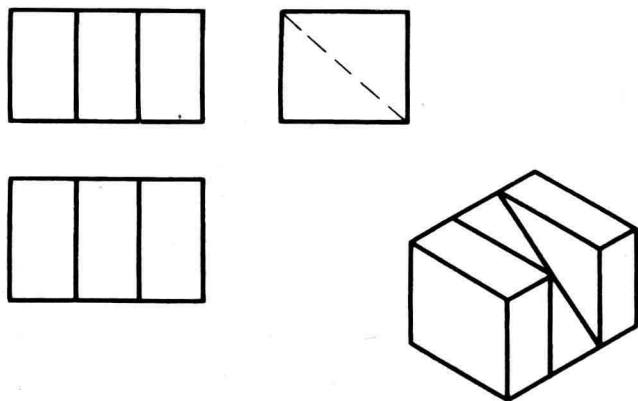
A 面与 B 面平行于 V 面。
C 面垂直于 V 面，在 V 面投影积聚成直线。

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）

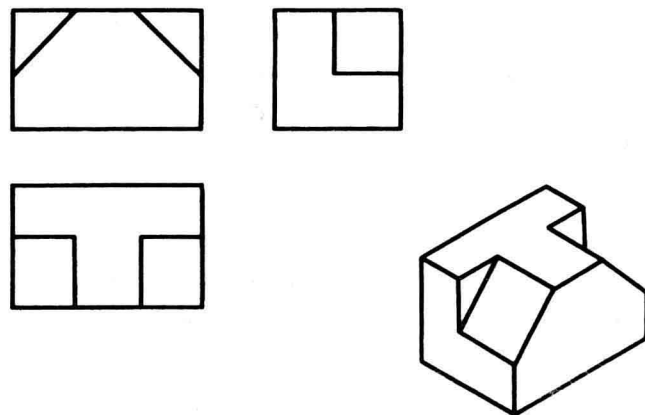
 (11)	 (12)	 (2)	 ①  ②
 (3)	 (5)	 (10)	 ③  ④
 (4)	 (9)	 (6)	 ⑤  ⑥
 (8)	 (7)	 (1)	 ⑦  ⑧

2-3 根据轴测图补画三视图中漏画的图线

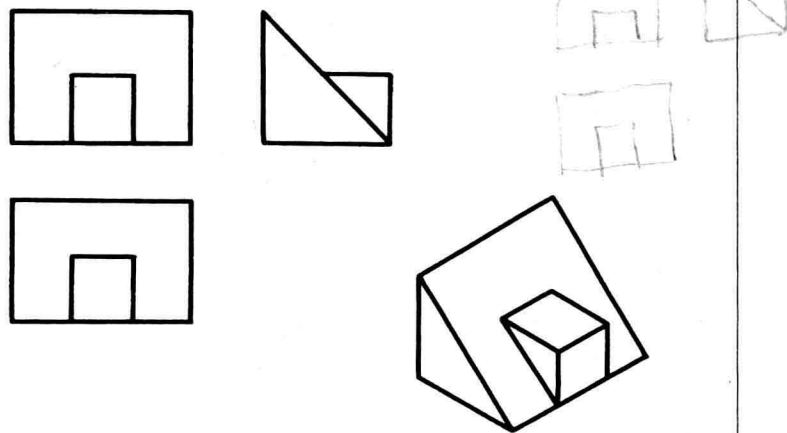
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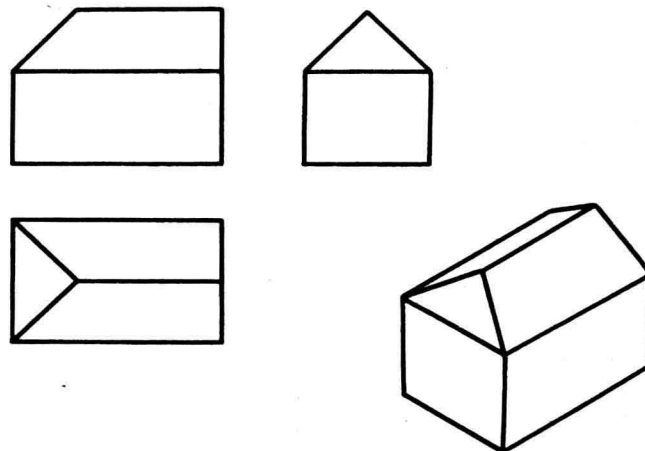
2.



3.

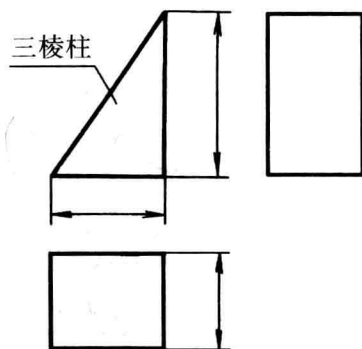


4.

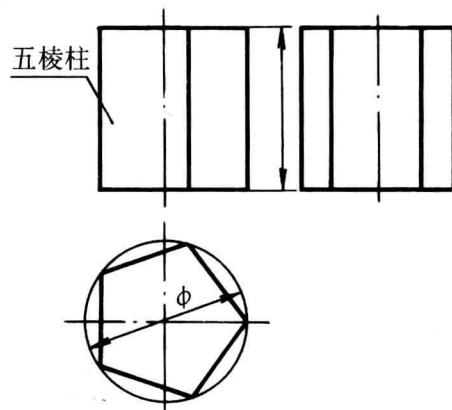


2-4 根据基本体的两视图补画第三视图，然后写出基本体名称，并标注尺寸（不注数值）

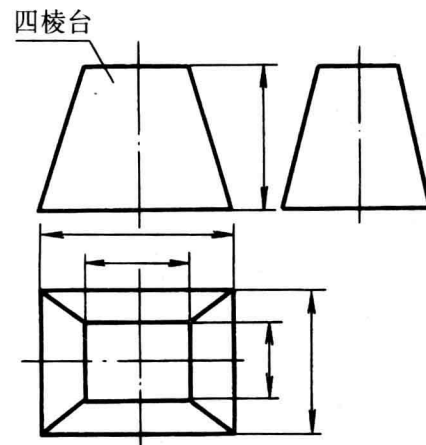
1.



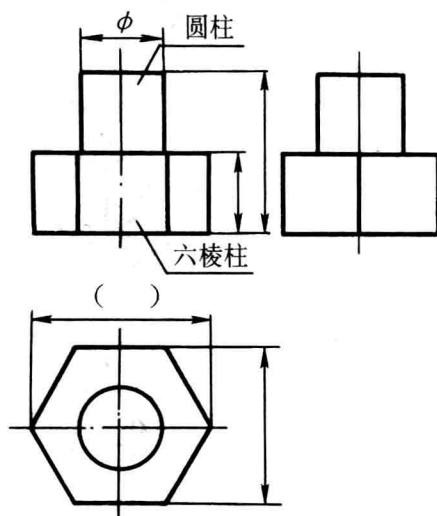
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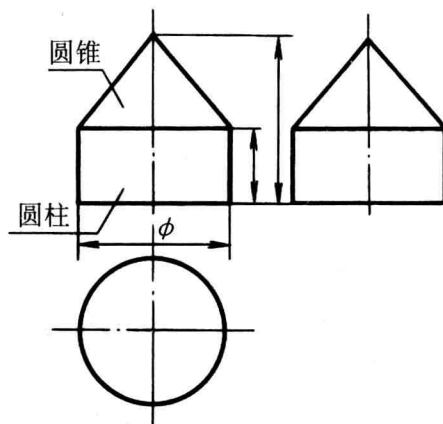
3.



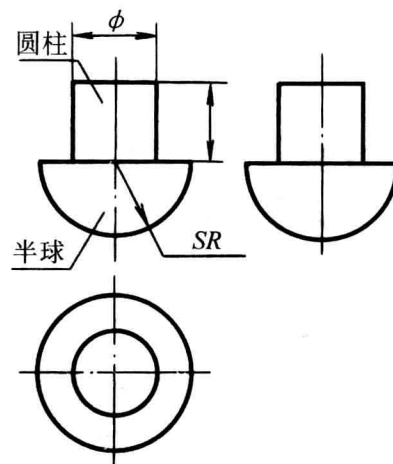
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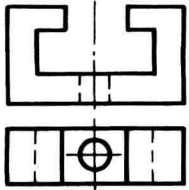
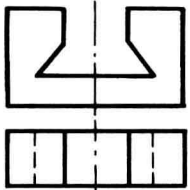
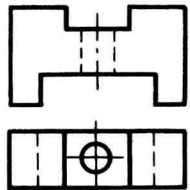
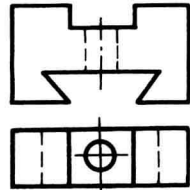
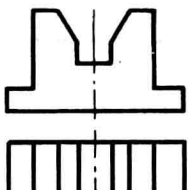
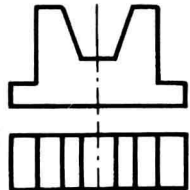
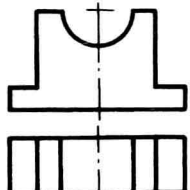
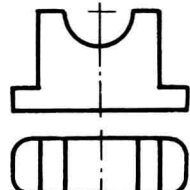
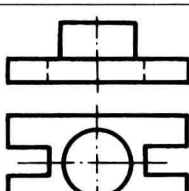
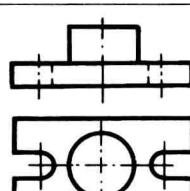
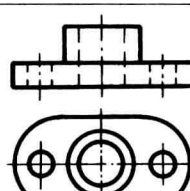
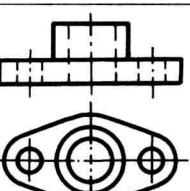
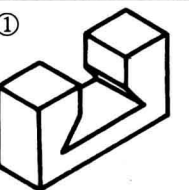
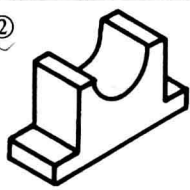
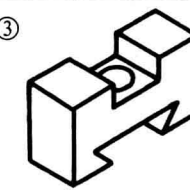
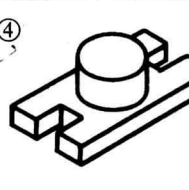
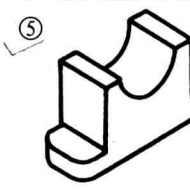
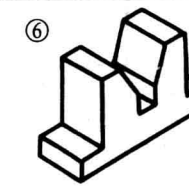
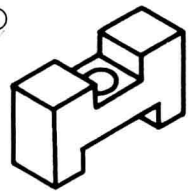
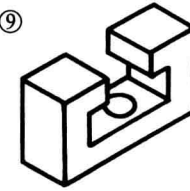
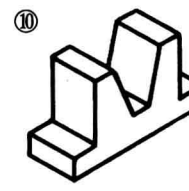
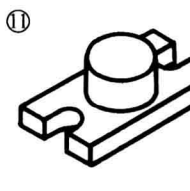
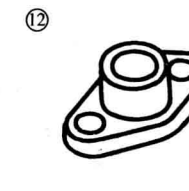
5.



6.

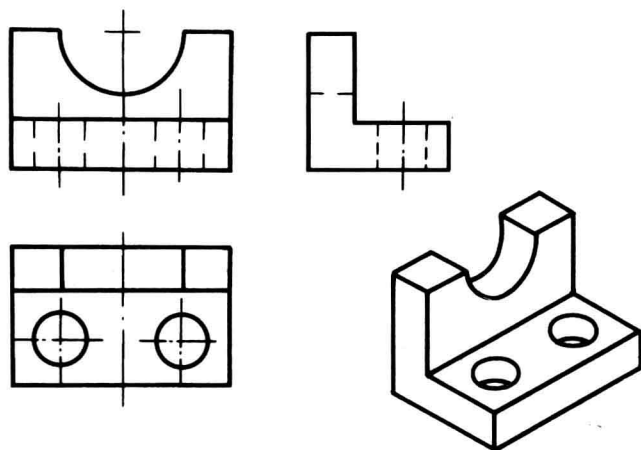


2-5 根据轴测图找出三视图, 并在括号内填写相应的序号

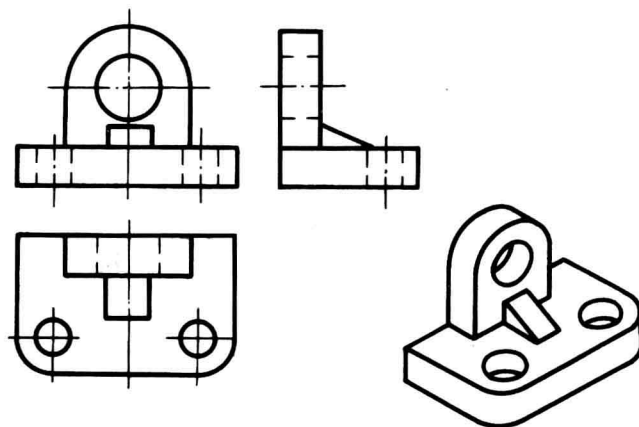
 (9)	 (1)	 (7)	 (3)		
 (6)	 (10)	 (2)	 (5)		
 (4)	 (11)	 (8)	 (12)		
 ①	 ②	 ③	 ④	 ⑤	 ⑥
 ⑦	 ⑧	 ⑨	 ⑩	 ⑪	 ⑫

2-6 补画三视图中漏画的图线

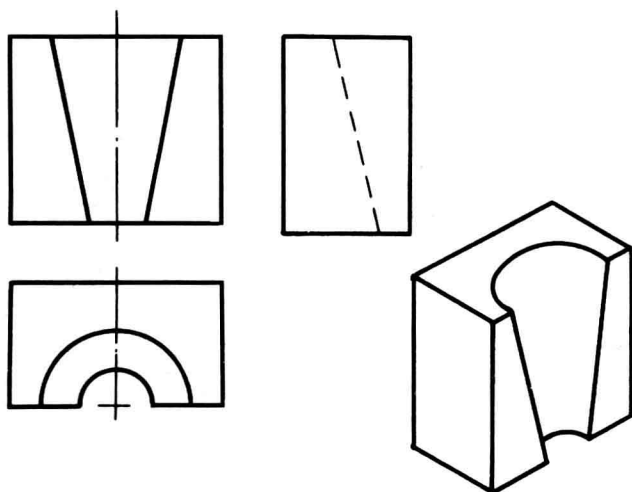
1.



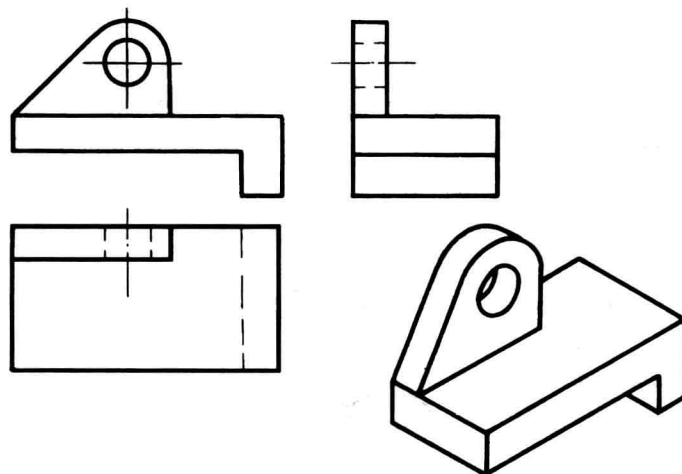
2.



3.

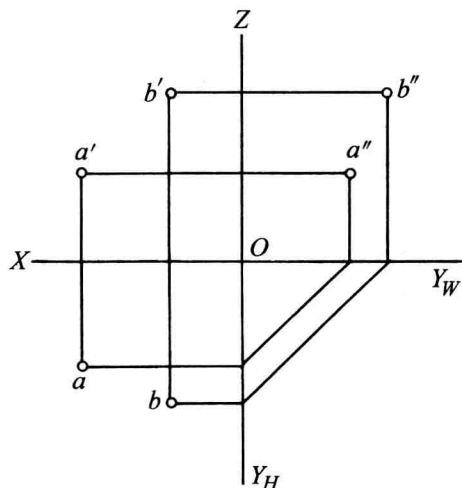


4.

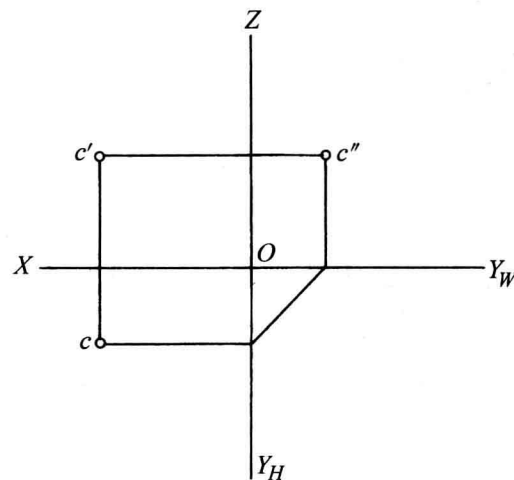


2-7 点和直线的投影

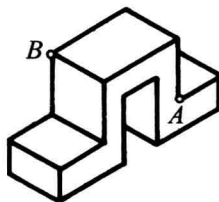
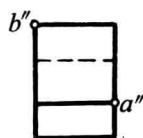
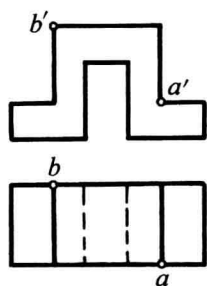
1. 求作 A 点和 B 点的第三面投影



2. 已知 C 点 (20, 10, 15), 求它的三面投影

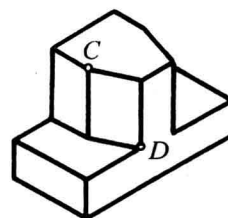
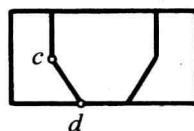
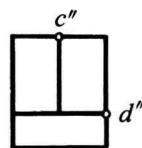
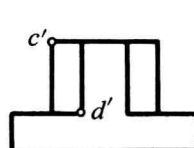


3. 参照轴测图, 在三视图上标注 A、B 两点在 H、W 面上的投影, 并填空



A 点在 B 点之 下 ,
B 点在 A 点之 后 ,
A 点在 B 点之 右 。

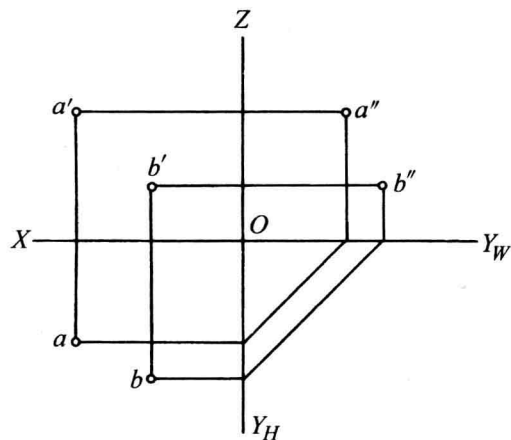
4. 参照三视图, 在立体图上标出 C、D 两点位置, 并填空



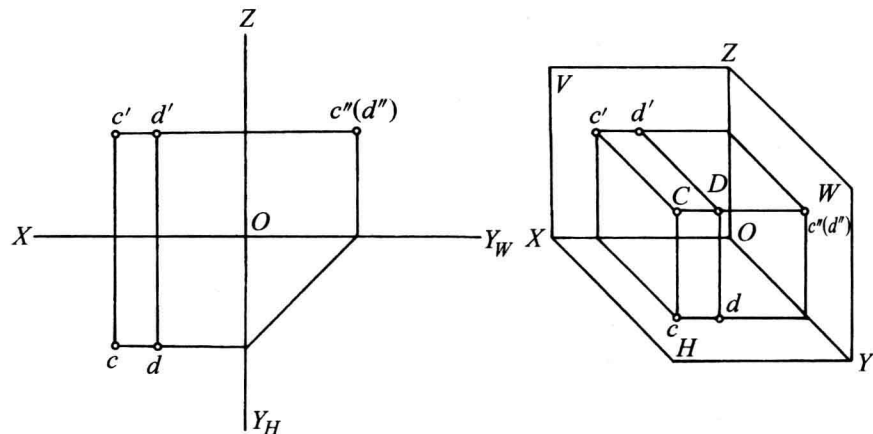
C 点在 D 点之 上 ,
D 点在 C 点之 前 ,
C 点在 D 点之 左 。

2-7 (续)

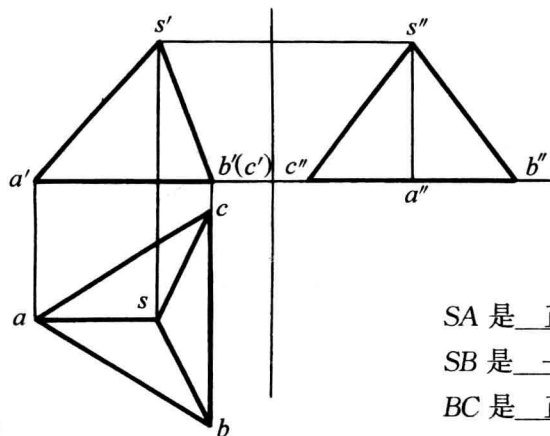
5. 已知 A 点的三面投影, B 点在 A 点的右方 10, 前方 5, 下方 10, 求作 B 点的三面投影图



6. 参照右图, 作出 C、D 两点的三面投影, 并标明可见性

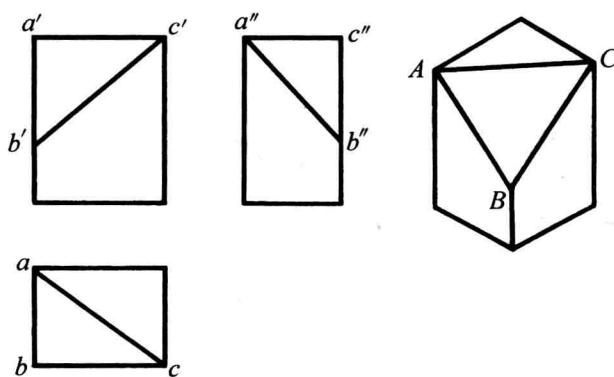


7. 补画左视图, 并填空



SA 是 正平 线,
SB 是 一般位置 线,
BC 是 正垂 线。

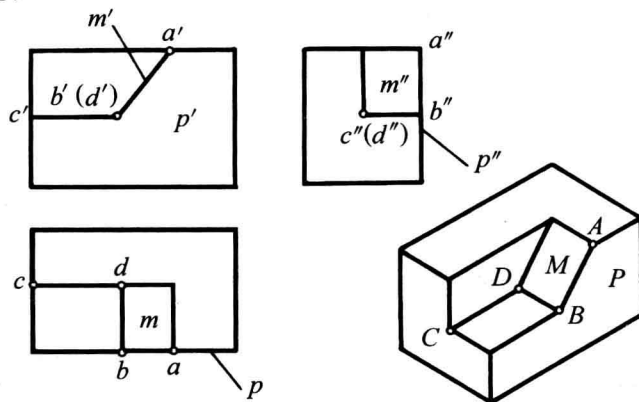
8. 参照轴测图, 补画三视图中的漏线, 标出字母, 并填空



AB 是 侧平 线, AC 是 水平 线, BC 是 正平 线。

2-8 注出平面 P 、 M 和直线 AB 、 CD 的三面投影，并根据它们对投影面的相对位置填空

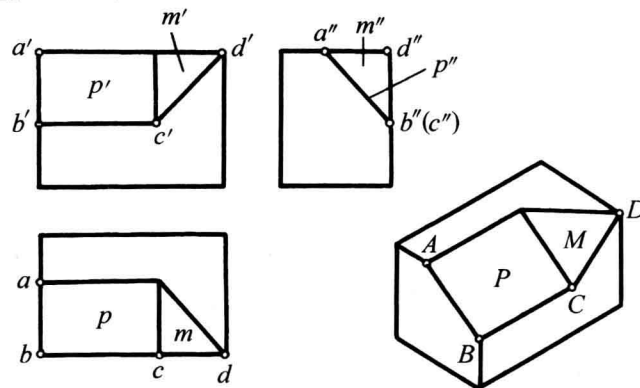
1.



AB 是 正平 线， CD 是 侧垂 线。

P 面是 正平 面， M 面是 正垂 面。

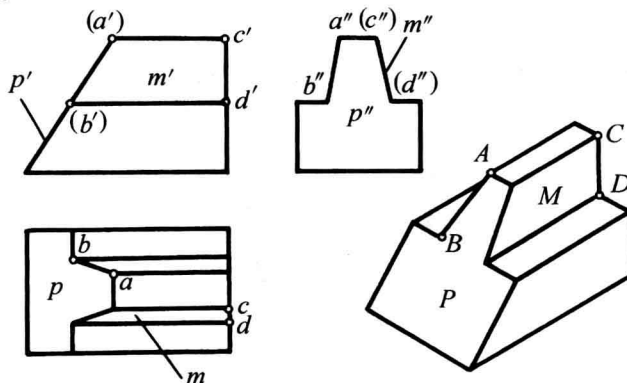
2.



AB 是 侧平 线， CD 是 正平 线。

P 面是 侧垂 面， M 面是 一般位置 面。

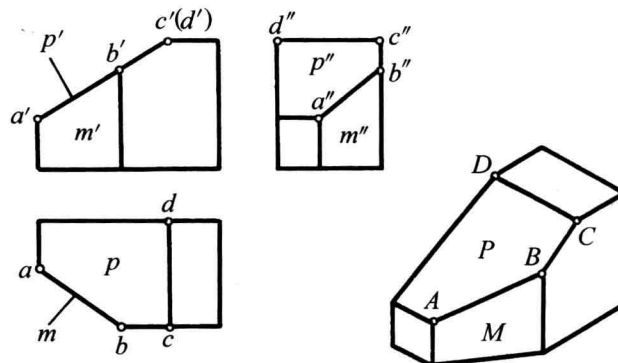
3.



AB 是 一般位置 线， CD 是 侧平 线。

P 面是 正垂 面， M 面是 侧垂 面。

4.

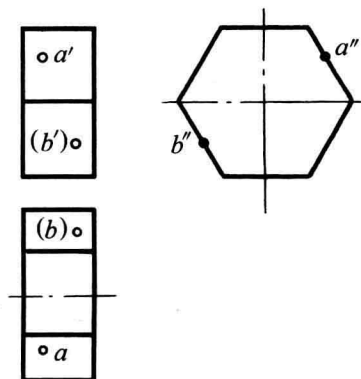


AB 是 一般位置 线， CD 是 正垂 线。

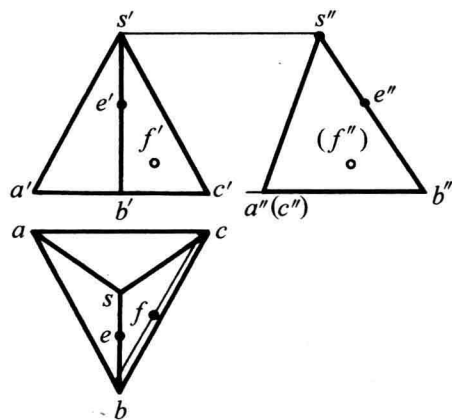
P 面是 正垂 面， M 面是 铅垂 面。

2-9 补画第三视图, 并作出所给点的三面投影

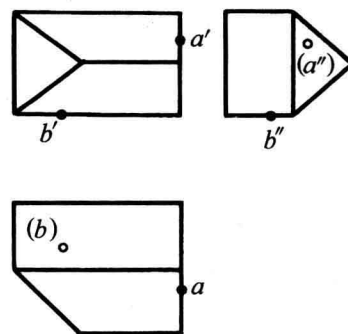
1.



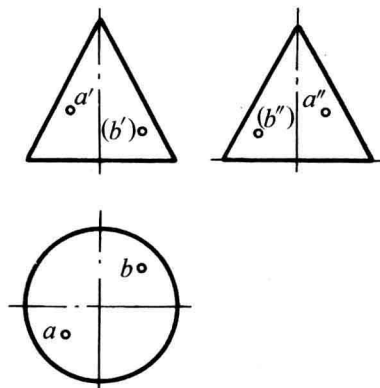
2.



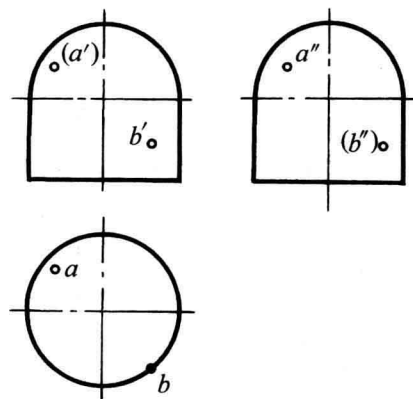
3.



4.



5.



6. (1/4 圆台)

