

技工学校试用教材

机械制图 解

吉武余 王德慧等 编

四川科学技术出版社

一九八六年·成都

· 内容提要 ·

本书题解是成注所出《机械制图习题集》（机械工业出版社《机械制图习题集》编写组编写）的详细解答。内容包括：字体、基本制图标准与几何作图；点、线、面的投影，轴测图、截交线、相贯线，组合体画图、读图、标注尺寸；零件的各种表达方法，常用件与标准件，公差配合及形位公差；零件图及装配图、展开图、焊接图的识读等。

本书题解可与习题集配套，供技工学校、职工技术培训、职业中学使用。亦可供新队及大、中专制图教师及学生参考。

K1502/05

01234567890ABCDEFGHIJKLMN0PQRSSTUUVWXYZ
01234567890ABCDEFGHIJKLMN0PQRSSTUUVWXYZ

Handwriting practice lines for the first set of characters.

Handwriting practice lines for the second set of characters.

01234567890ABCDEFGHIJMNPSI
01234567890ABCDEFGHIJMNPSI

Handwriting practice lines for the third set of characters.

Handwriting practice lines for the fourth set of characters.

Handwriting practice lines for the fifth set of characters.

065 R34 M12 78H9 90f1
065 R34 M12 78H9 90f1

Handwriting practice lines for the sixth set of characters.

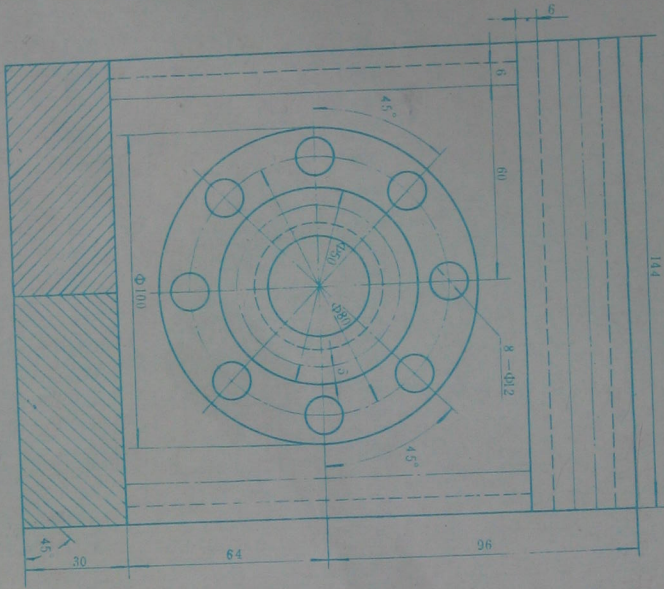
048 H6 025 +0.006 3616 +0.050
048 K6 025 -0.015 3616 +0.034

048 H7 025 +0.006 3616 +0.050
048 K6 025 -0.015 3616 +0.034

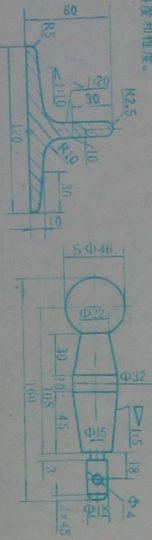
Handwriting practice lines for the seventh set of characters.

图线练习及几何作图。

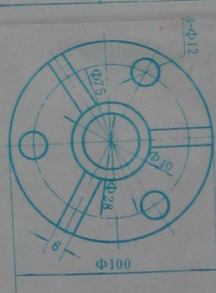
1. 照画下面所示的视图及图线(4号图纸, 尺寸比例 1:1)。



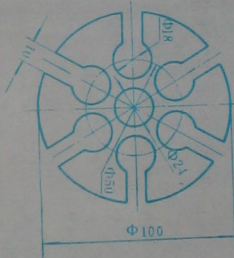
2. 斜度和精度。



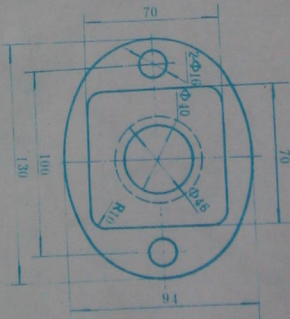
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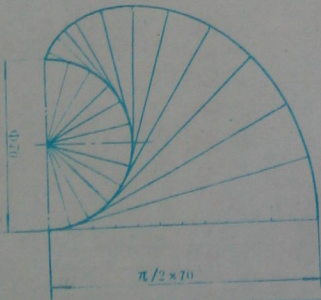
4.



6.



7.



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根据模型独立地画出三视图，以箭头方向为主视图方向。

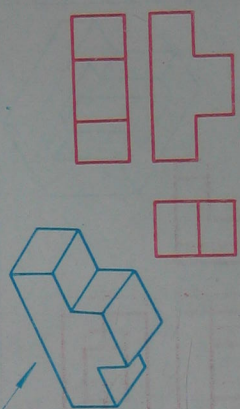
班级 姓名

学号

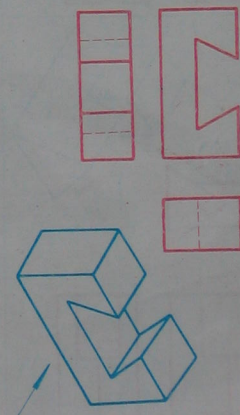
审核

7

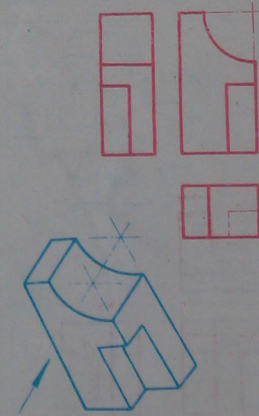
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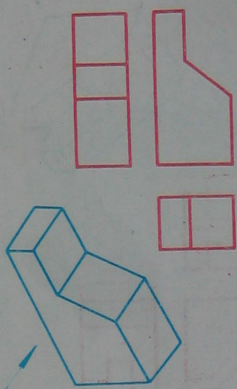
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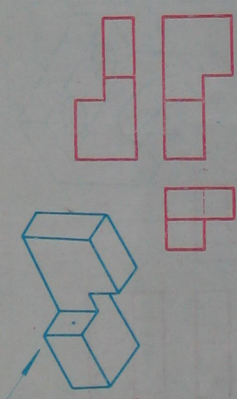
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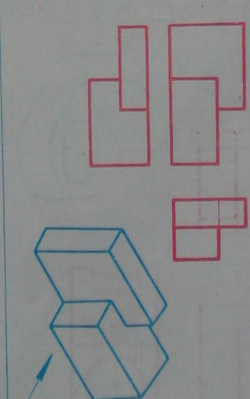
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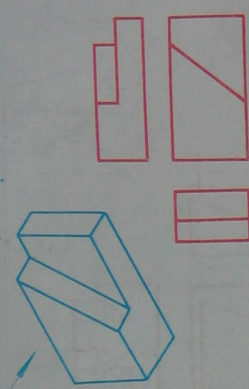
5.



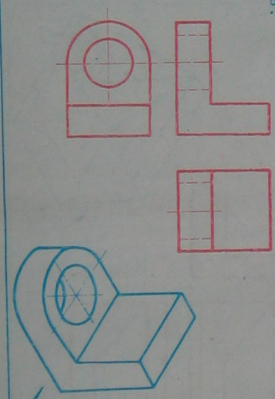
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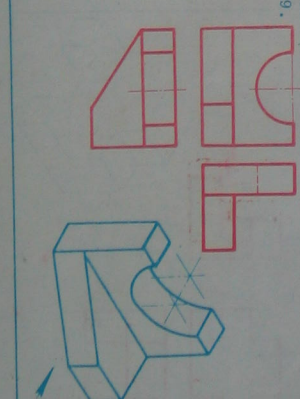
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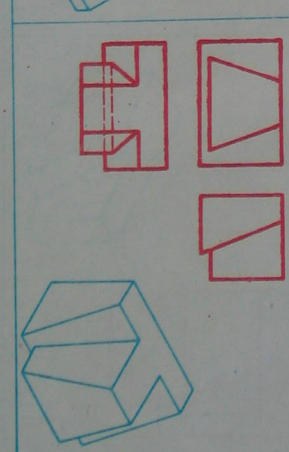
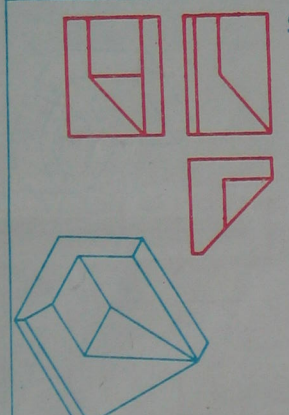
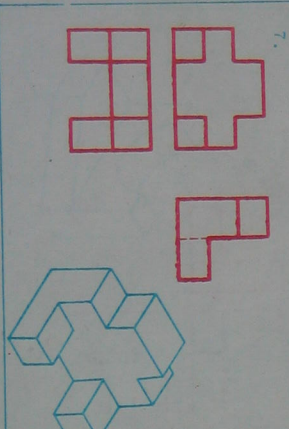
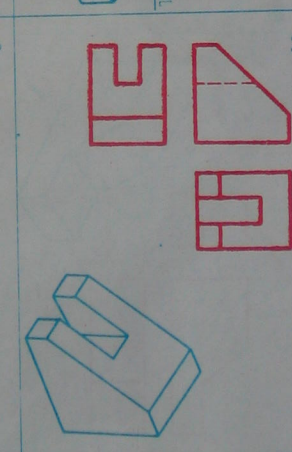
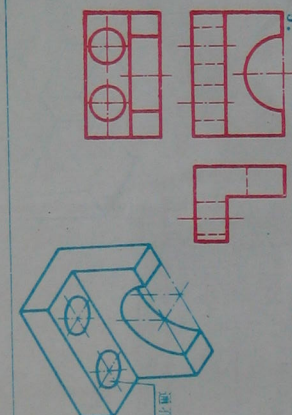
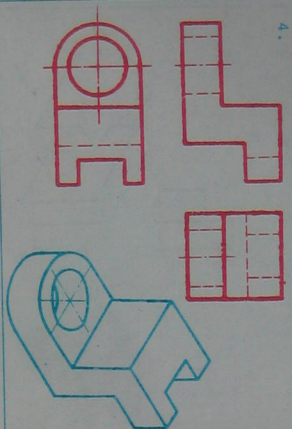
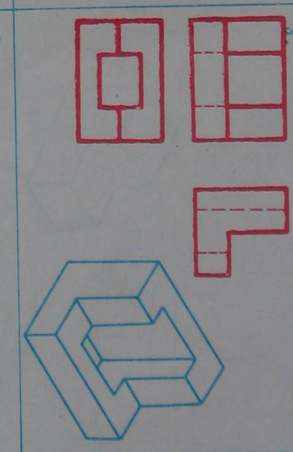
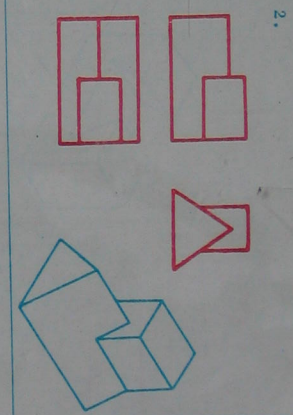
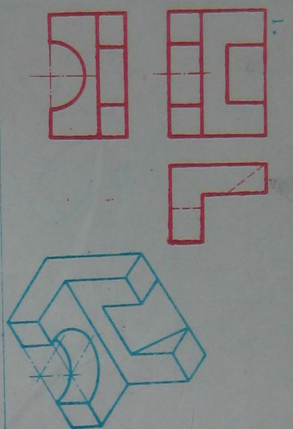


8.

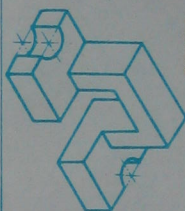
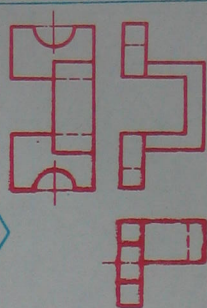


9.

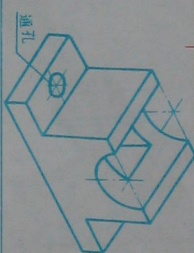
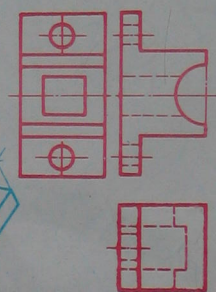




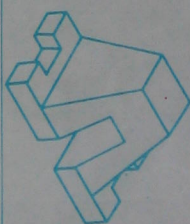
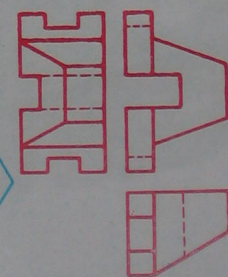
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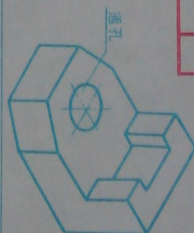
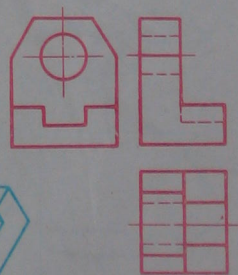
2.



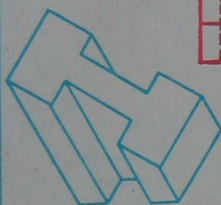
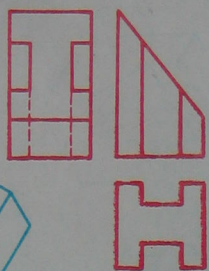
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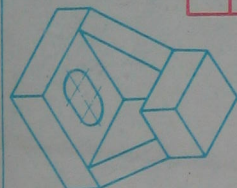
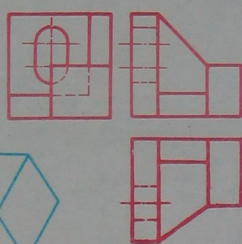
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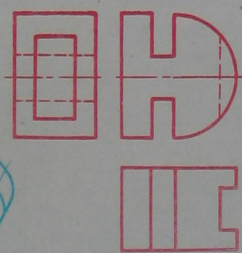
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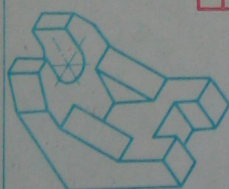
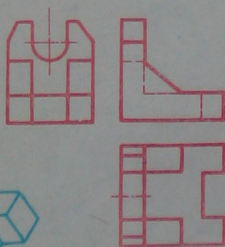
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7.



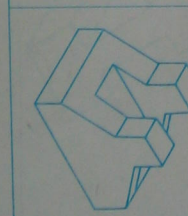
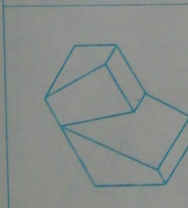
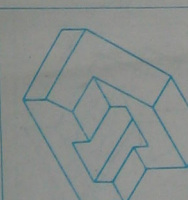
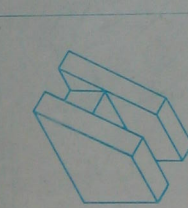
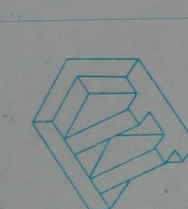
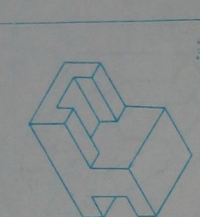
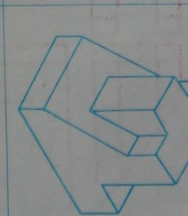
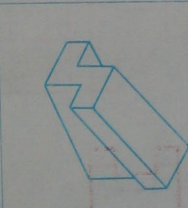
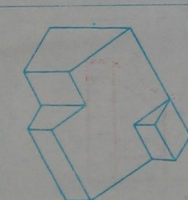
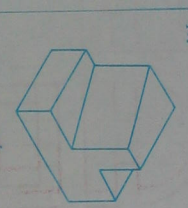
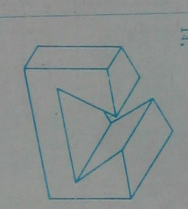
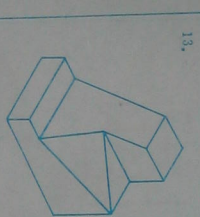
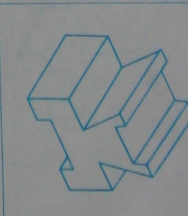
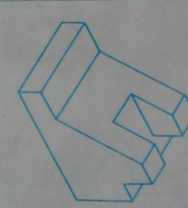
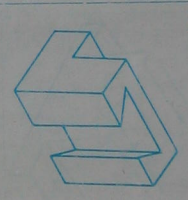
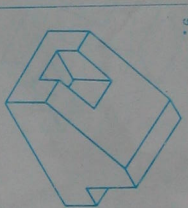
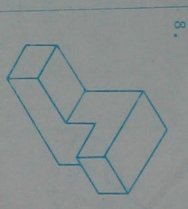
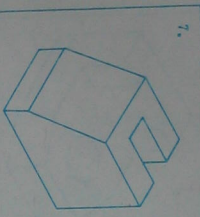
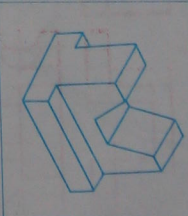
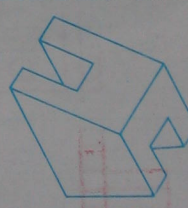
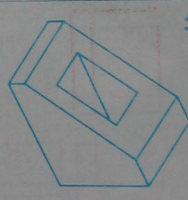
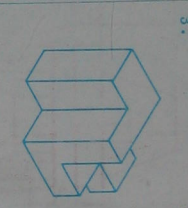
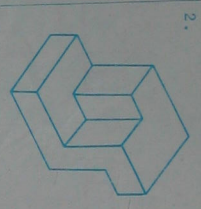
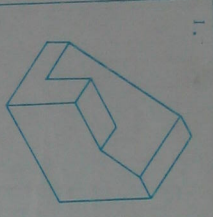
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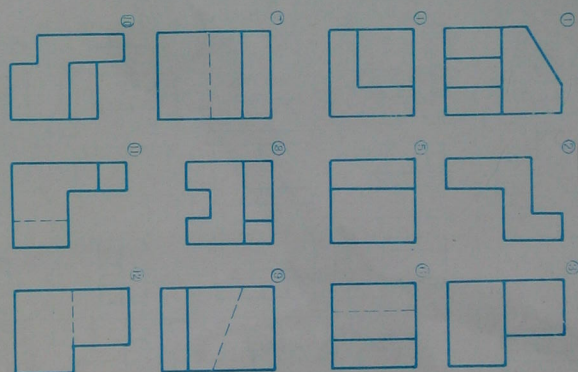
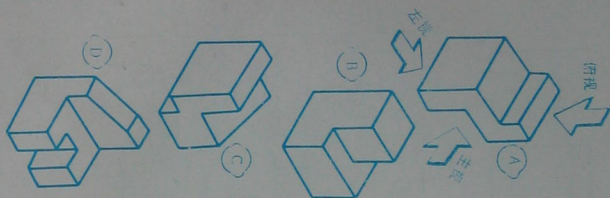
根据立体图画三视图 (三)

(答案见P103~104)

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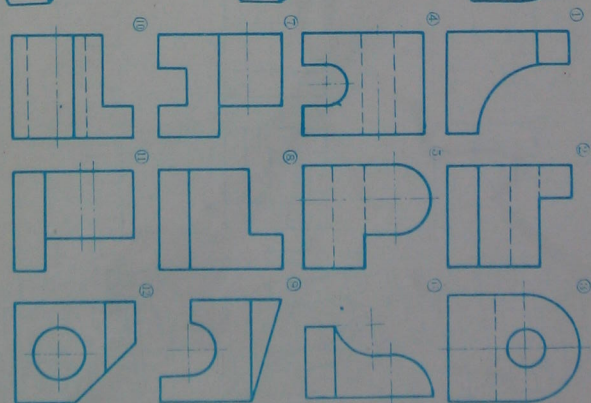
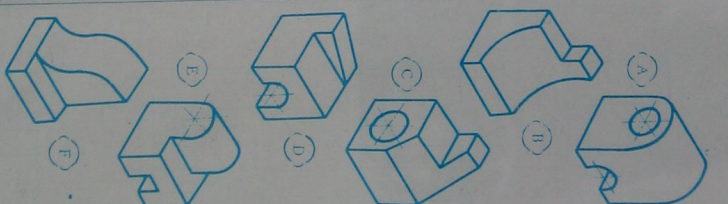


1. 对照立体图, 将对应的主、左视图填入表中



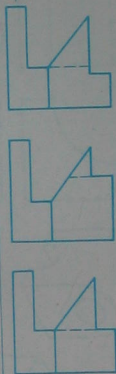
立体图号	A	B	C	D
主视图	2	3	10	1
左视图	7	12	9	11
俯视图	6	4	5	8

2. 对照立体图, 将对应的主、左视图填入表中。



立体图号	A	B	C	D	E	F
主视图	4	8	10	9	7	6
左视图	3	1	12	2	5	11

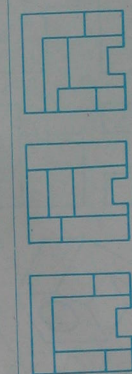
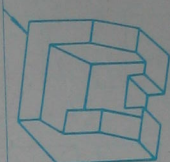
1. 找出符合箭头方向的正确的视图。



①

②

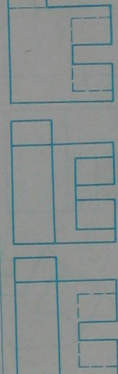
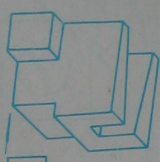
③



①

②

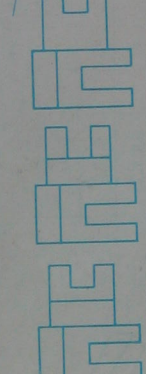
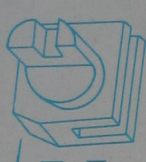
③



①

②

③



①

②

③

2. 表中已给定主视图图号, 找出对应的俯、左视图图号填入表中。

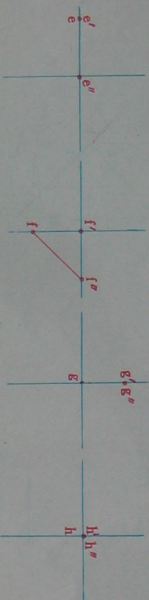
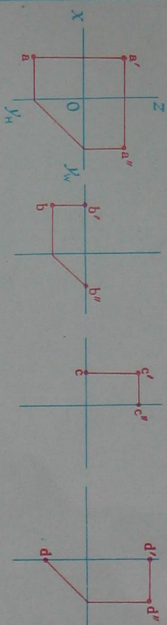
1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

主视图	1	3	5	7	12	29	19	27	24	14
俯视图	18	30	22	26	20	9	4	11	13	16
左视图	21	23	10	6	2	15	17	25	8	28

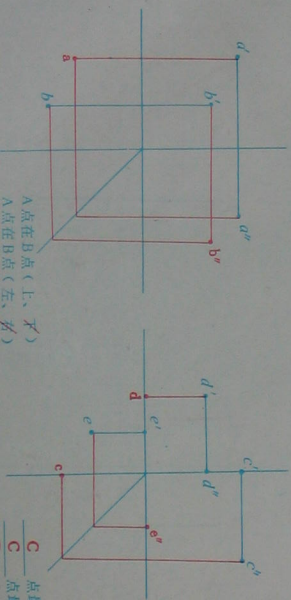
1. 按给定的坐标分别作点的三面投影图, 并判断其空间位置。

	A	B	C	D	E	F	G	H
X	10	12	8	0	14	0	0	0
Y	12	8	0	10	0	12	0	0
Z	10	0	13	15	0	0	10	0

空间位置 一般 H面上V面上W面上X轴上Y轴上Z轴上 原点



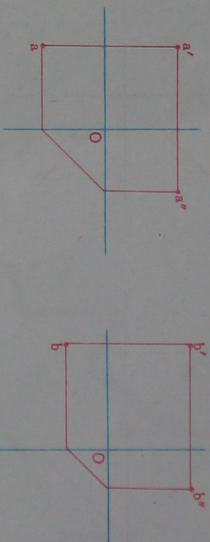
2. 求点的第三投影, 并比较其相对位置。



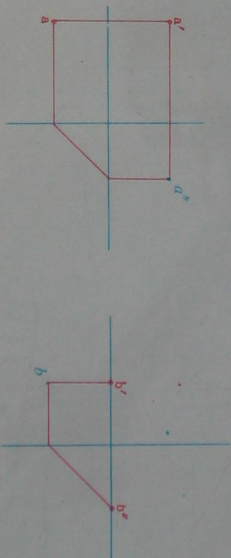
A点在B点(上、下)
A点在B点(左、右)
A点在B点(前、后)

C 点最右
C 点最前
E 点最低

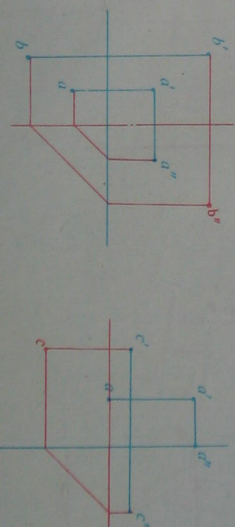
3. 已知A点距H面18, 距W面20, 距V面15, B点距V面10, 距H面20, 距W面25。分别作出A、B两点的三面投影图。



4. 已知A、B两点的二个投影和A点距W面为25, B点距H面为0, 求作A、B两点的另二投影。



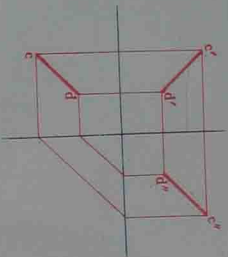
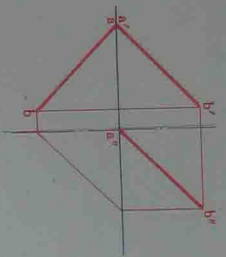
5. 按给定条件, 补画所缺的投影轴, 并求B、C两点的第三投影。



直线的投影 (一)

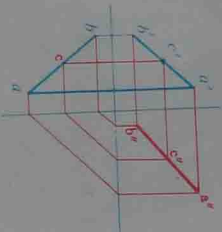
1. 已知直线的两端点坐标, 作直线的三面投影图。

(1) 已知 $A(25, 0, 0)$, $B(5, 20, 20)$ (2) 已知 $C(20, 20, 20)$, $D(10, 10, 10)$

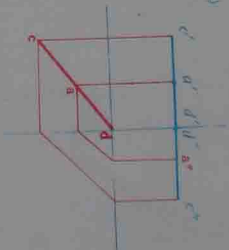


2. 完成直线段及线上点的三面投影图。

(1)

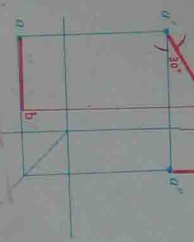


(2)

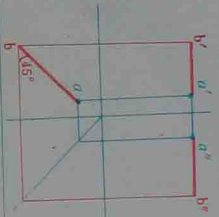


2. 已知直线段 AB 长 20 和端点 A 的投影, 按给定条件分别作三面投影图。

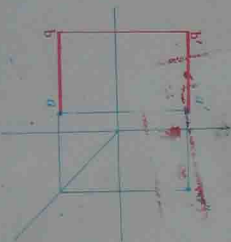
(1) 已知 A 平行于 V 面与 H 面夹角为 30°



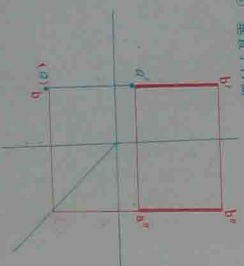
(2) 平行于 H 面与 V 面夹角为 45°



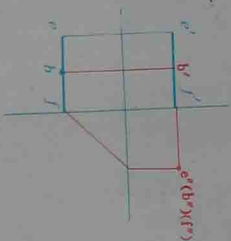
(3) 垂直于 V 面



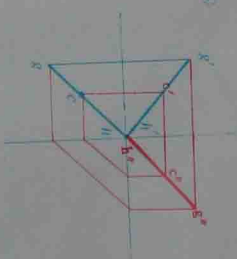
(4) 垂直于 H 面



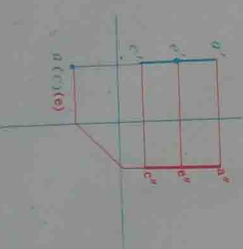
(5)



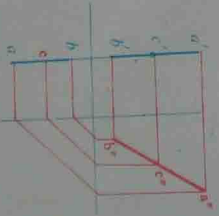
(6)



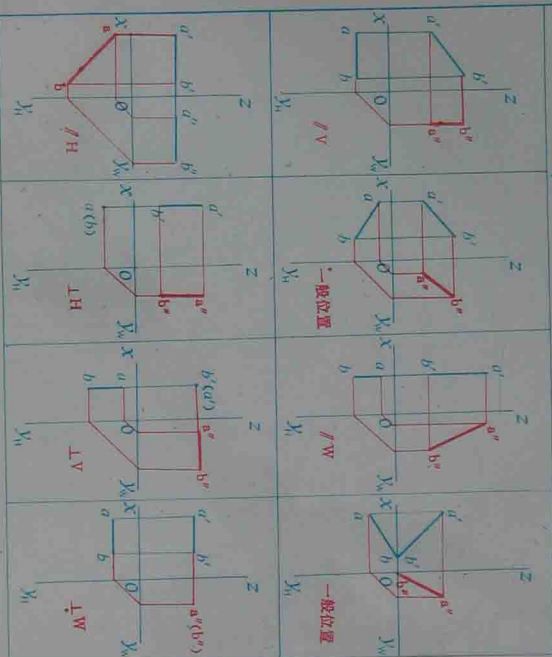
(7)



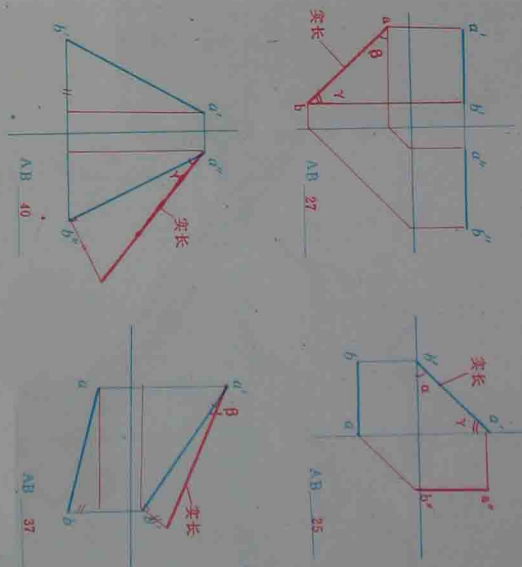
(8)



1. 求直线的第三投影, 并说明直线对投影面的相对位置。



2. 指出或求线段的实长, 测量填写, 并指出直线对投影面的倾角。



3. 判断直线的相对位置, 并填写 (平行、相交、交叉)。

