

中央电视台
电视讲座教材

建筑识图习题集

北京工程图学学会科普工作委员会 编



科学普及出版社

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前 言

本习题集是和中央电视台电视讲座教材《建筑识图》配套使用。共有七部分内容：一、投影的基本知识；二、物体的多面正投影图；三、基本形体；四、组合体；五、建筑形体的尺寸标注；六、剖面图和断面图；七、施工图。

第一至第六部分是教材前六章的习题，通过这六部分的练习，可以进一步熟悉和掌握看图基本方法和步骤，加深对建筑图中常用的两种表达方法的理解，为看施工图建立良好的基础。第七部分是教材第七至第十一章的习题，通过阅读这一部分施工图（建筑施工图、结构施工图和设备施工图），进一步掌握看施工图的方法和步骤，了解施工图的内容和图示特点，以达到培养和提高看建筑图的能力。

为了便于读者解题，对每一类型的题目一般都给出解题示例或进行必要的说明。另外，为了便于读者核对，书末附有习题解答。

作习题的目的主要是更好地掌握所学的内容，培养和提高看图能力。为此，希望读者在收看电视讲座之后，认真阅读教材。在理解有关内容的基础上，再作习题，切忌收看电视讲座后就急于作题，更不要遇有困难就查阅答案。

本习题集由北方交通大学巩永龄（主编）、宋兆全、朱自珍、郑宝芸和马伯等同志编写。

编者 1988年4月

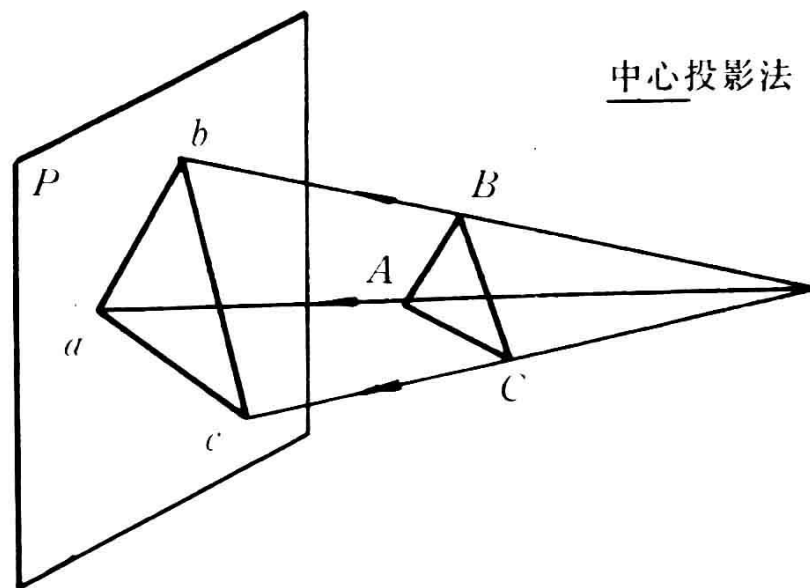
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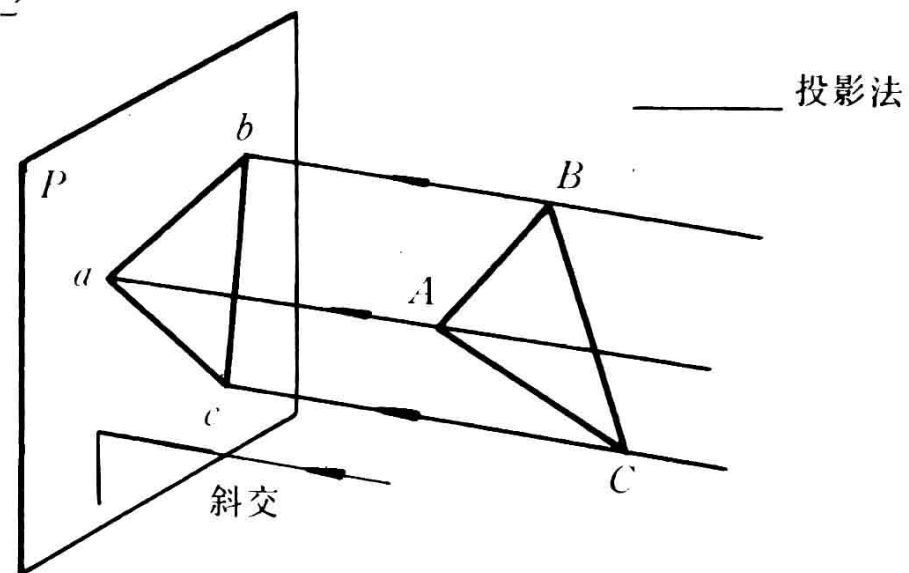
一、投影的基本知识

1-1 写出下列不同投影法的名称

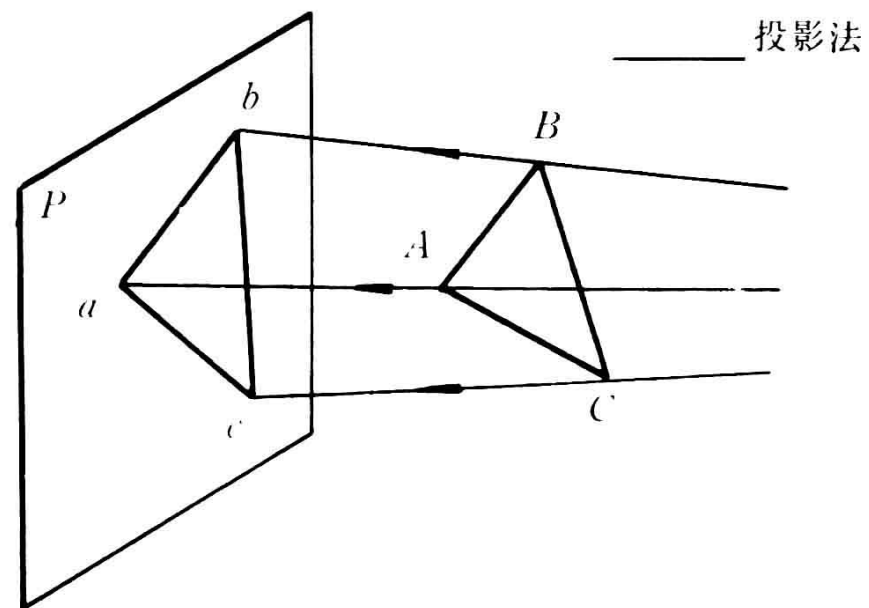
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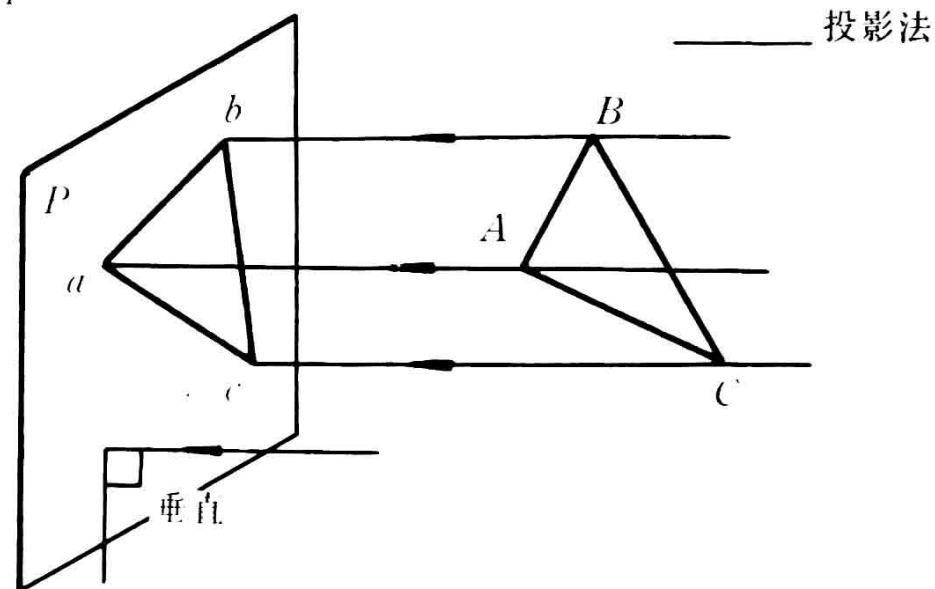
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3



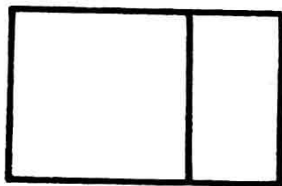
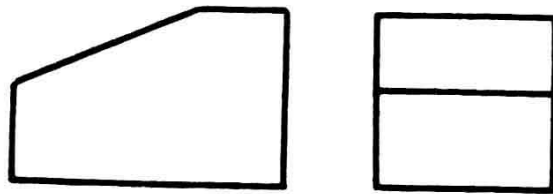
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1

1-2 写出下列各图是用什么投影法画的, 叫什么投影图

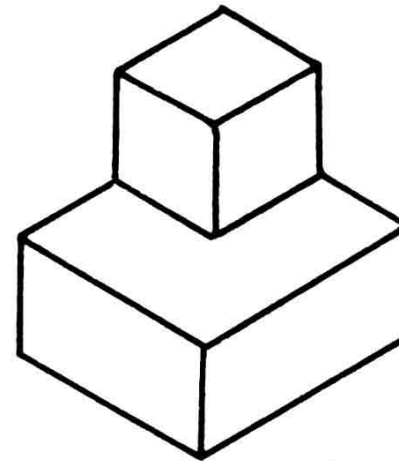
1【例】



用正投影法画的

多面正投影图

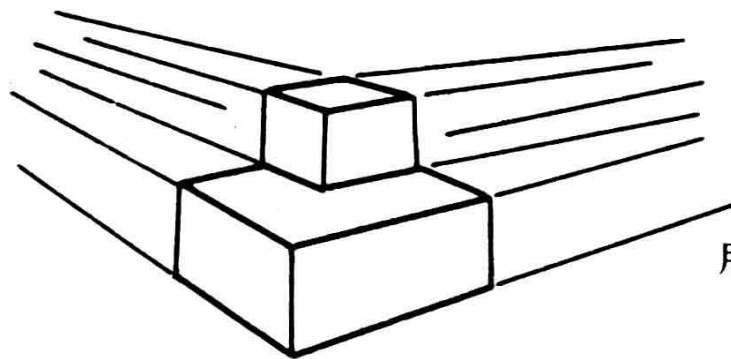
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用_____投影法画的

_____投影图

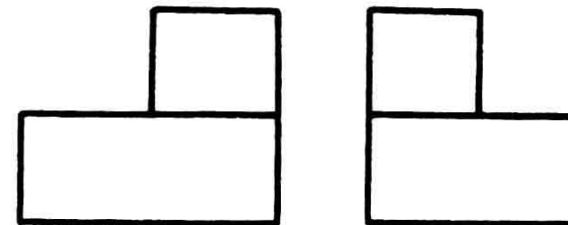
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用_____投影法画的

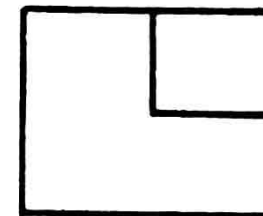
_____投影图

4



用_____投影法画的

_____投影图



1-3 看懂标高投影图并回答问题

1【例】

1 本处地形为一个小丘

2 等高距为2米

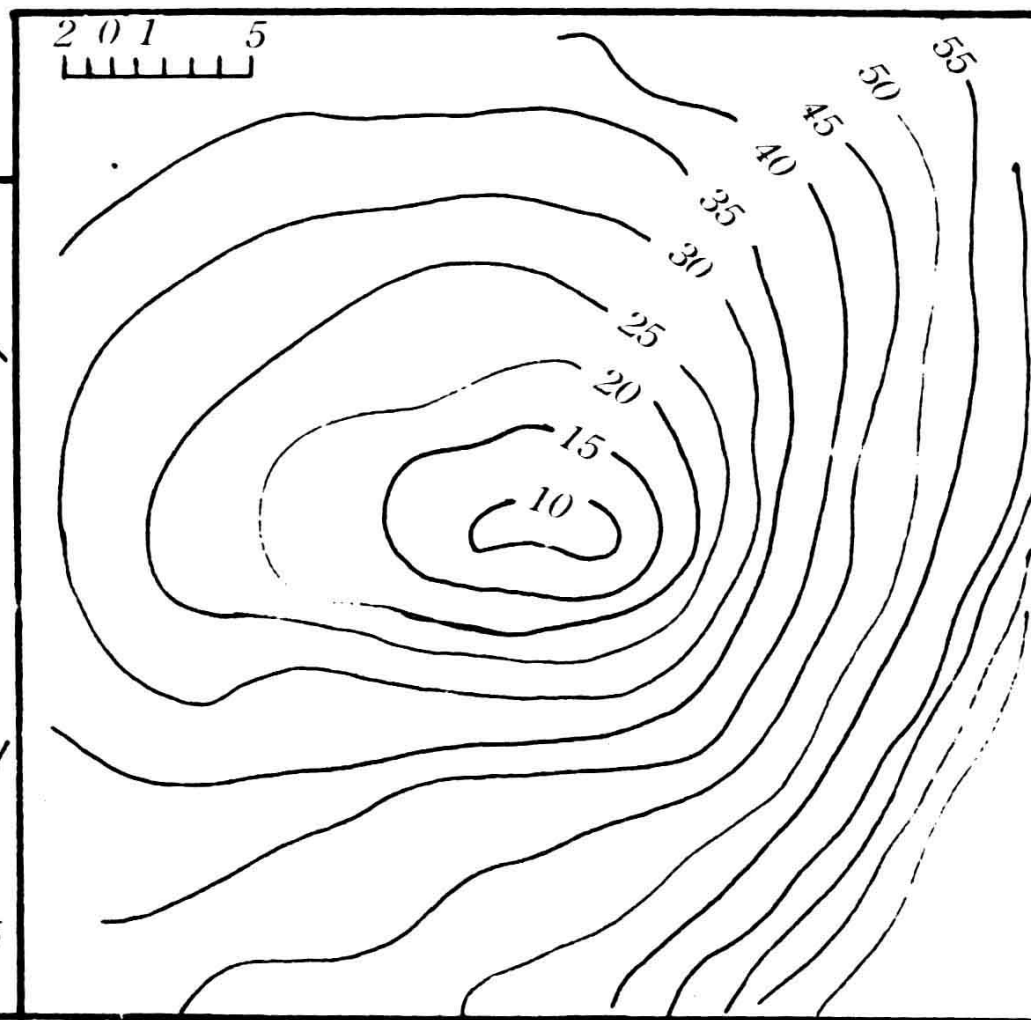
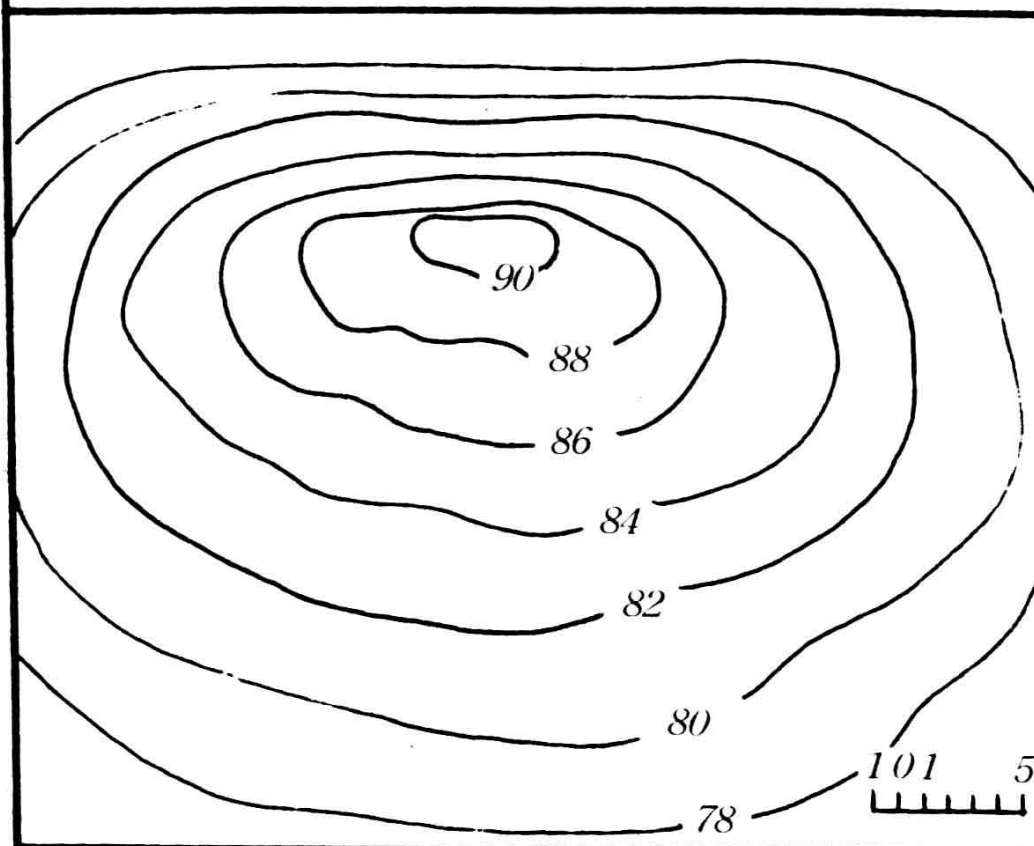
3 北部地势较陡,南部较平缓

2

1 _____

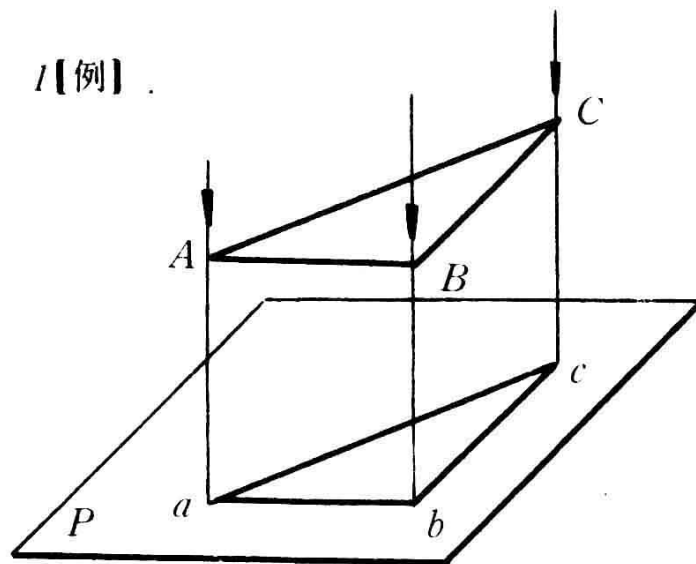
2 _____

3 _____



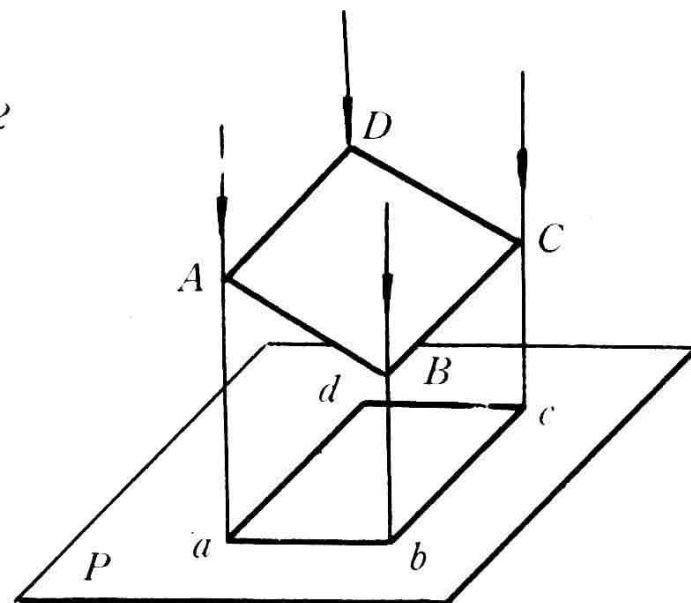
1-4 写出下列各图中的投影特性

1【例】



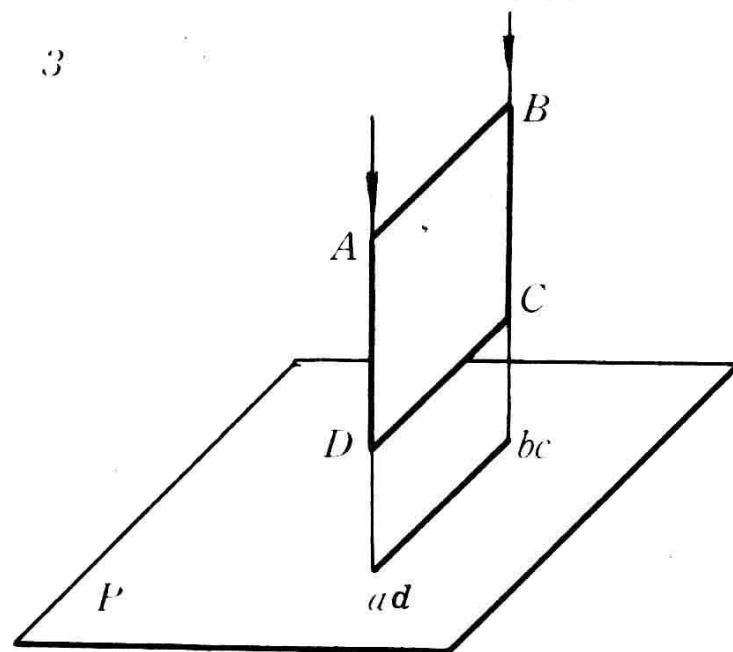
平面ABC和P面平行, 其投影反映实形

2



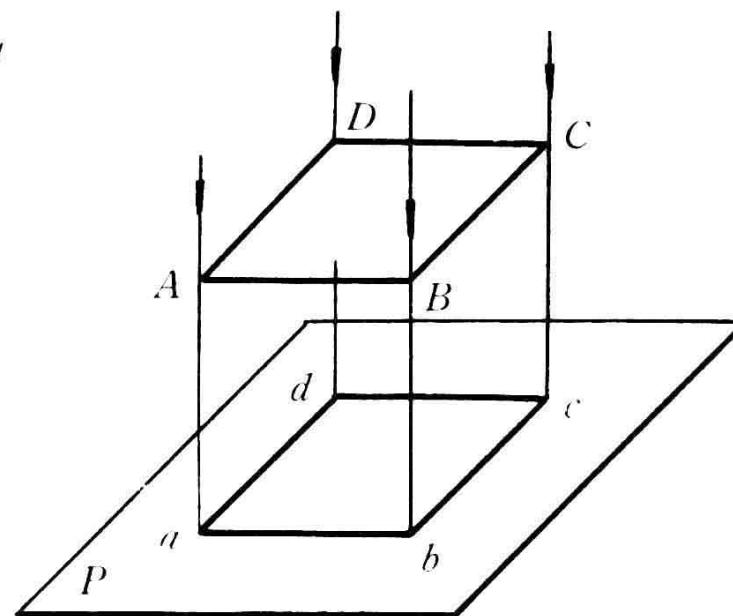
平面ABCD和P面____, 其投影____

3



平面ABCD和P面____, 其投影____

4

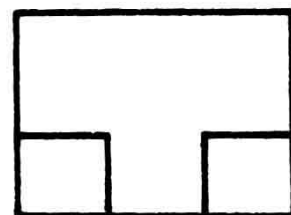
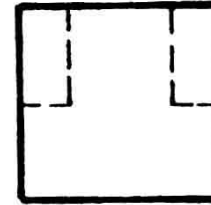
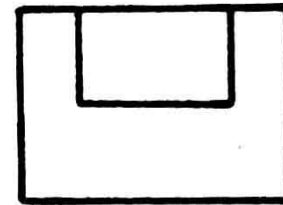
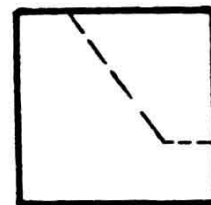
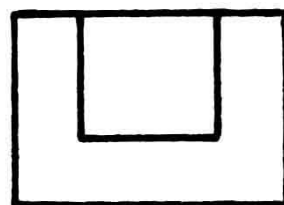
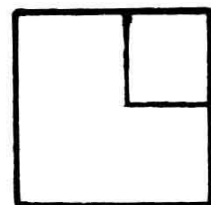
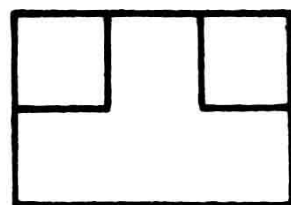


平面ABCD和P面____, 其投影____

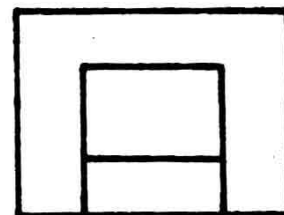
二、物体的多面正投影图

2-1 找出与三面图相对应的立体图, 并将其编号填入括弧内

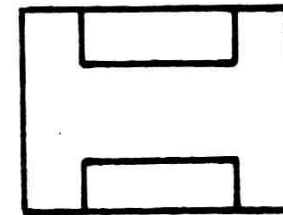
1【例】



(3)

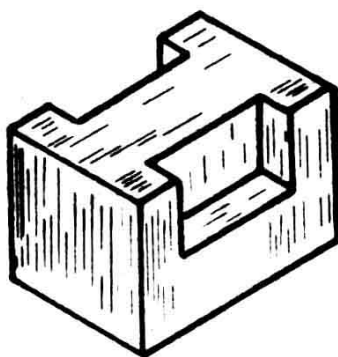


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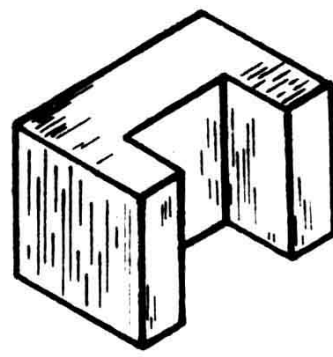


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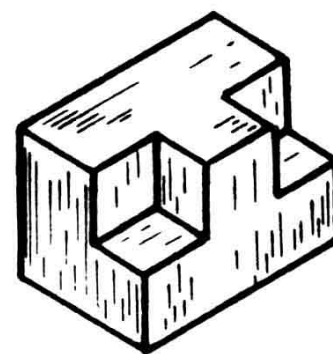
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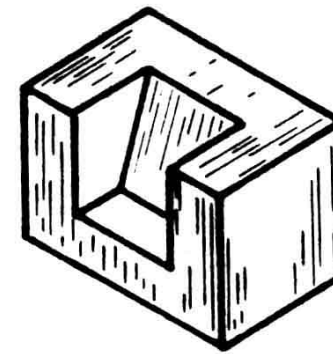
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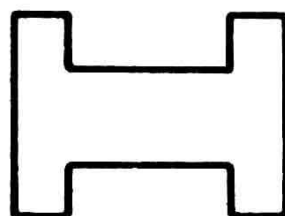
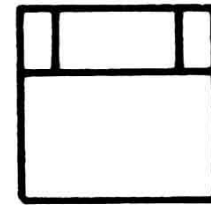
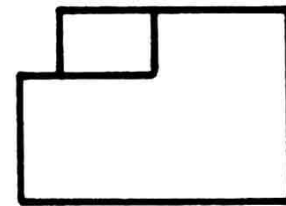
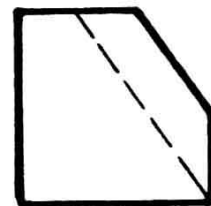
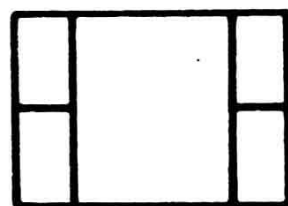
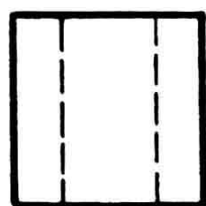
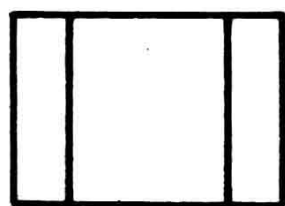
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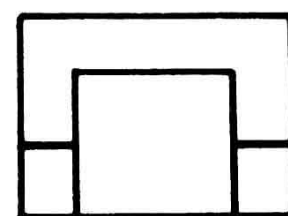
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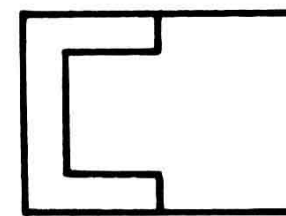
2-2 找出与三面图相对应的立体图, 并将其编号填入括号内



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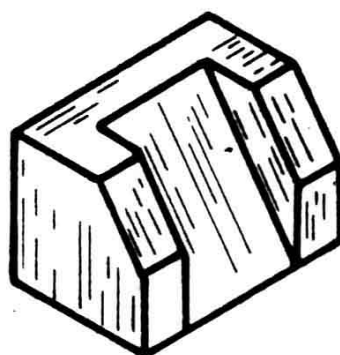


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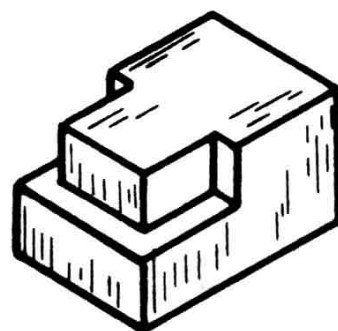


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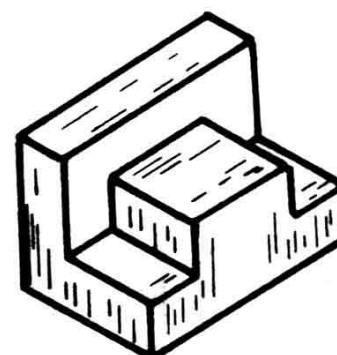
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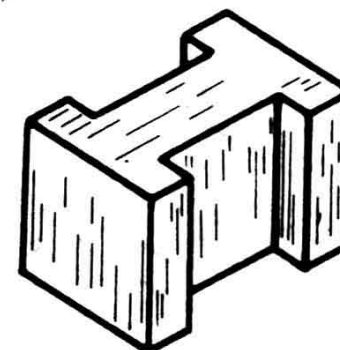
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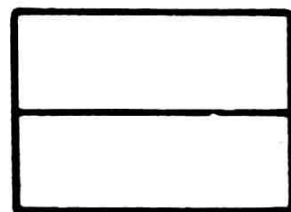
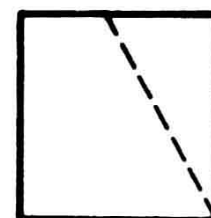
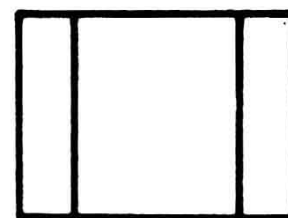
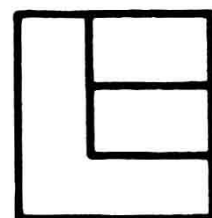
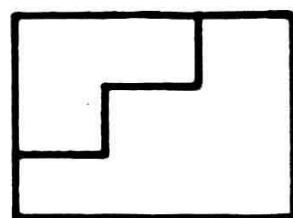
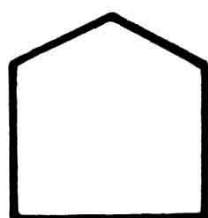
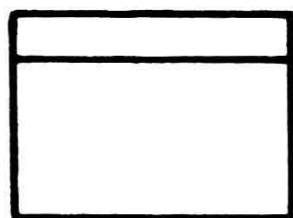
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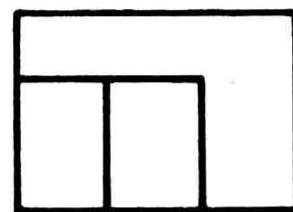
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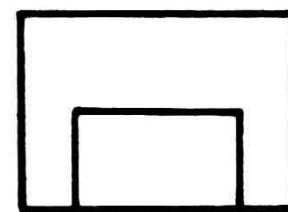
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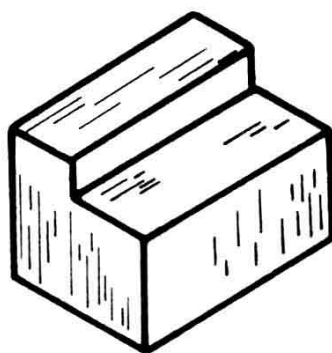


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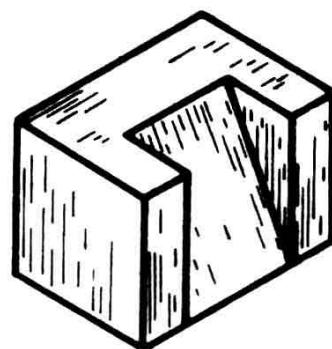


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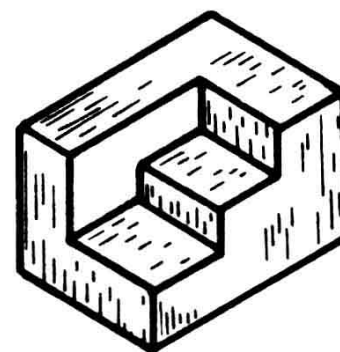
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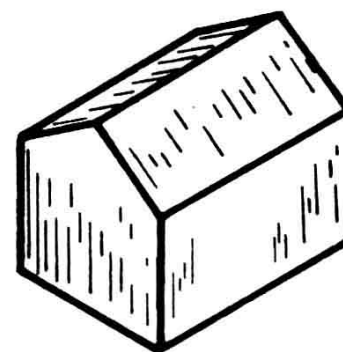
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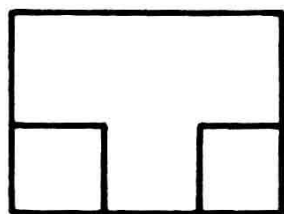
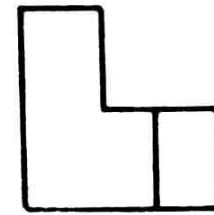
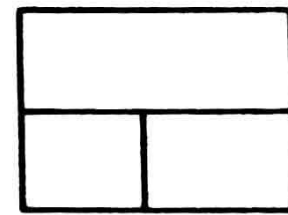
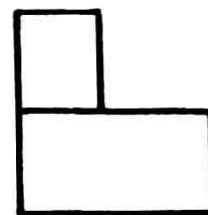
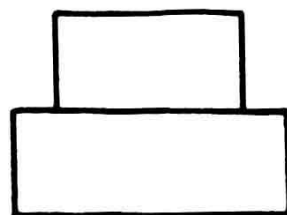
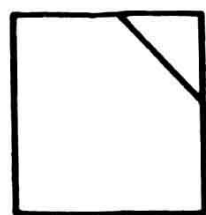
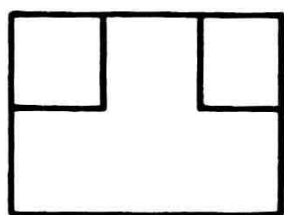
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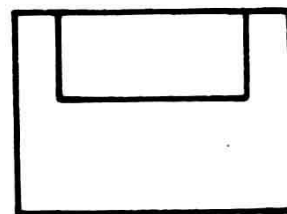
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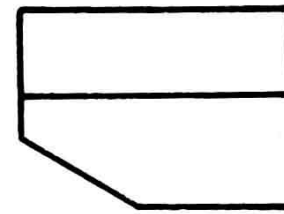
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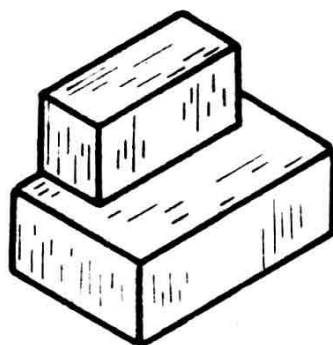


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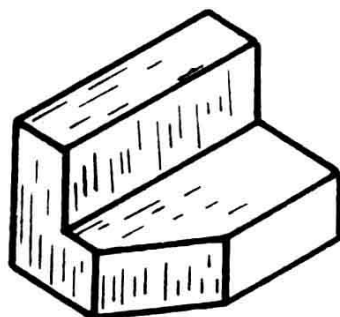


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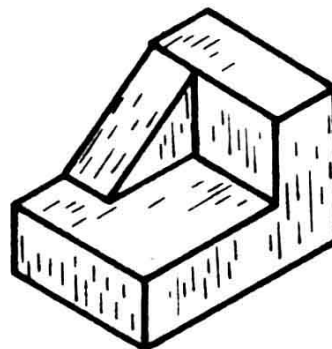
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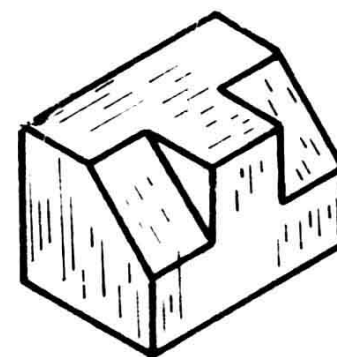
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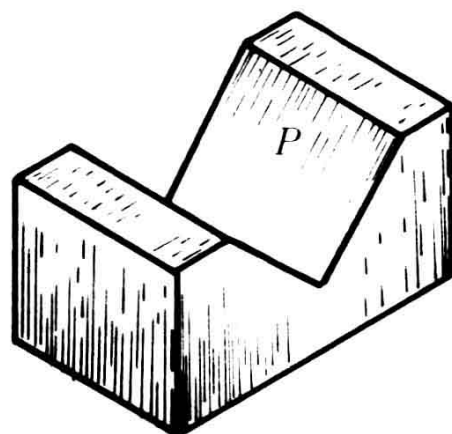
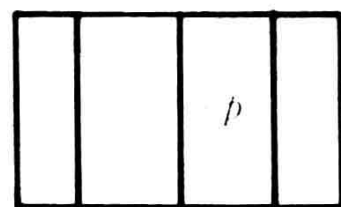
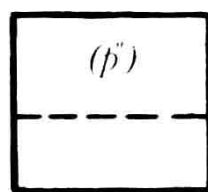
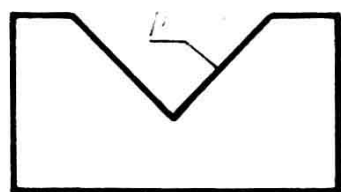


(4)

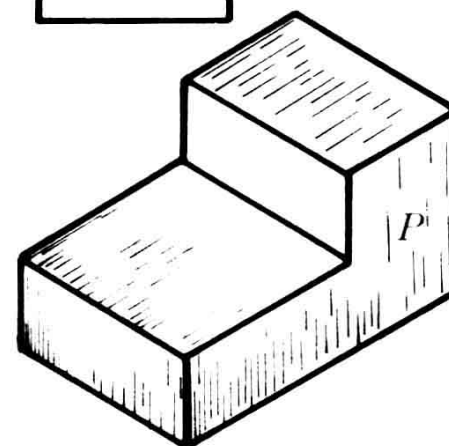
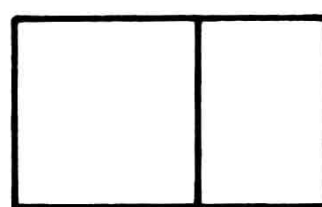
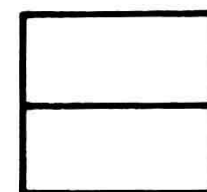
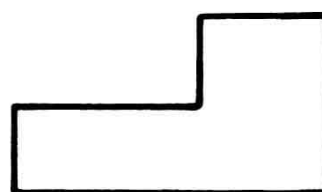


2-5 在三面图中标明平面 P 的三面投影(不可见的投影加括号表示)

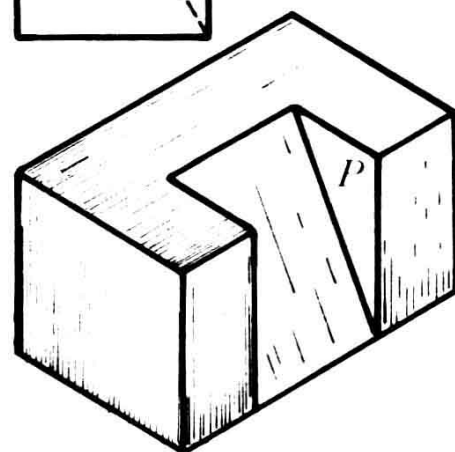
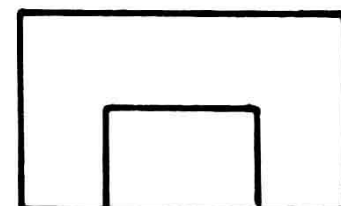
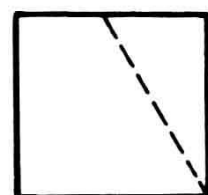
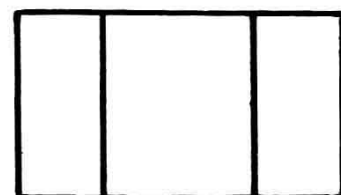
1【例】



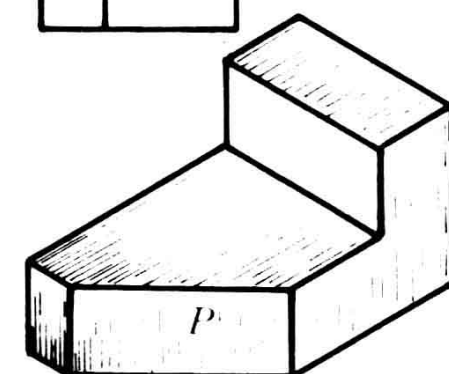
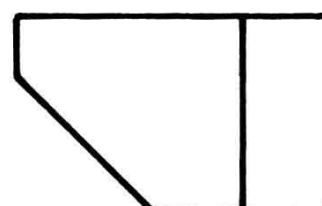
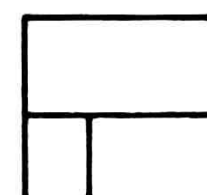
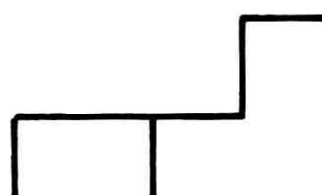
2



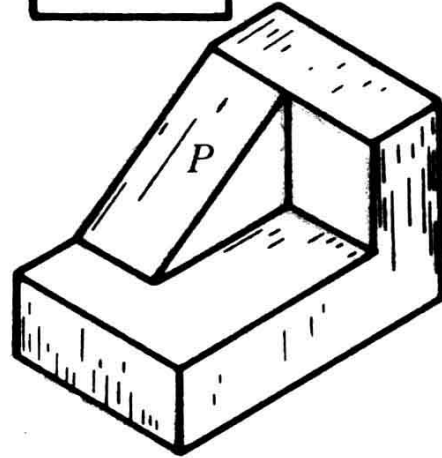
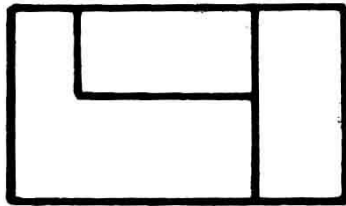
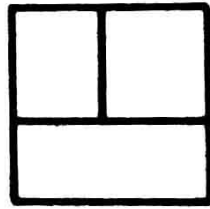
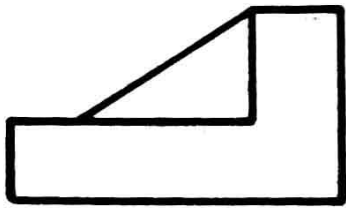
3



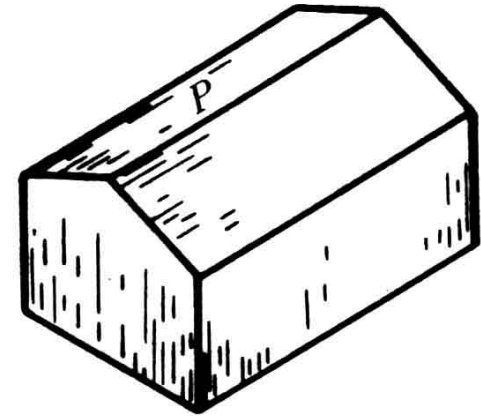
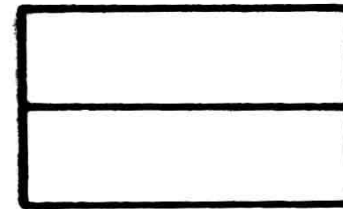
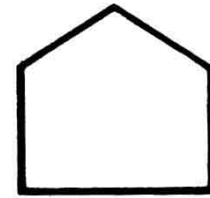
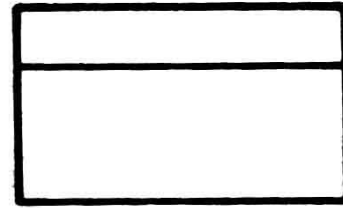
4



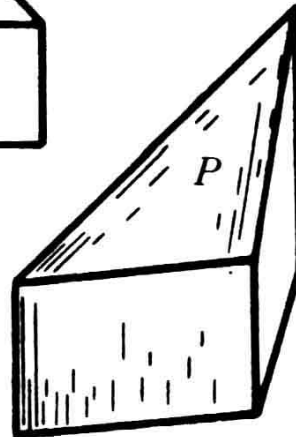
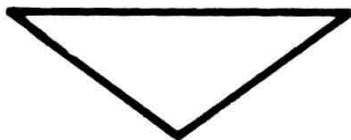
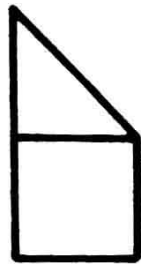
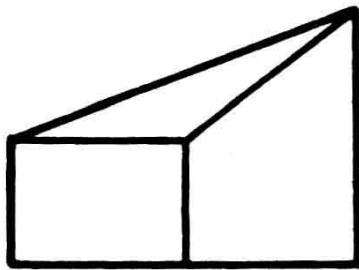
5



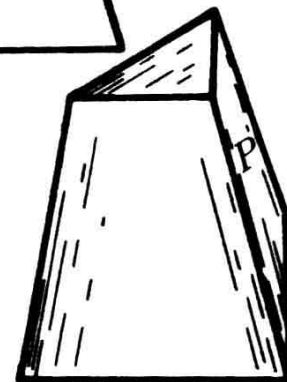
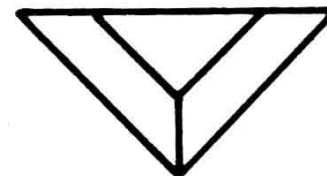
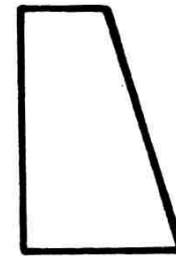
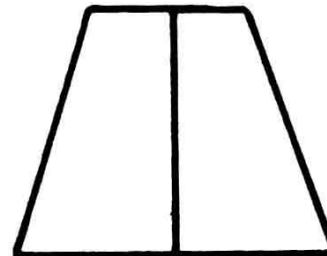
6



7

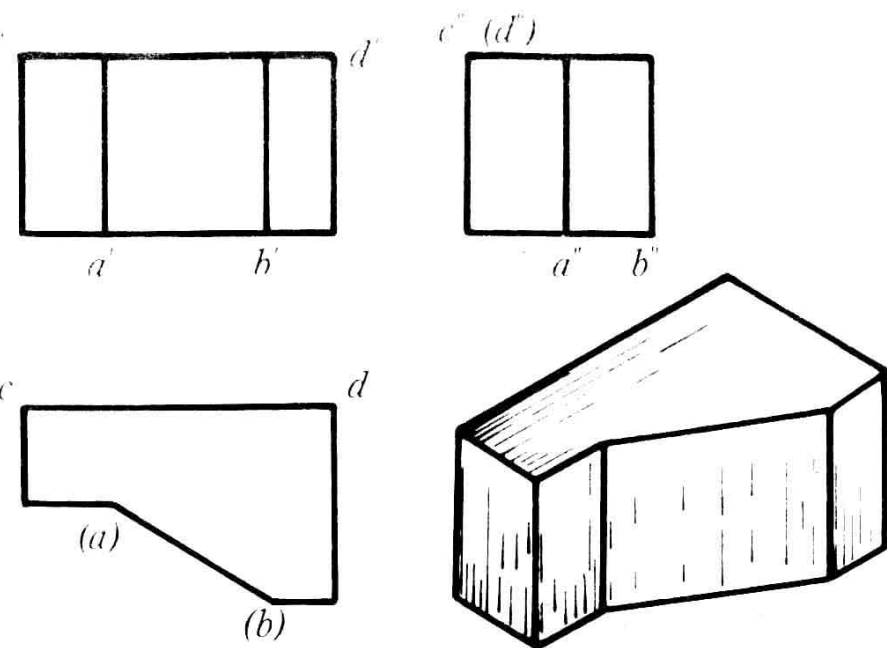


8

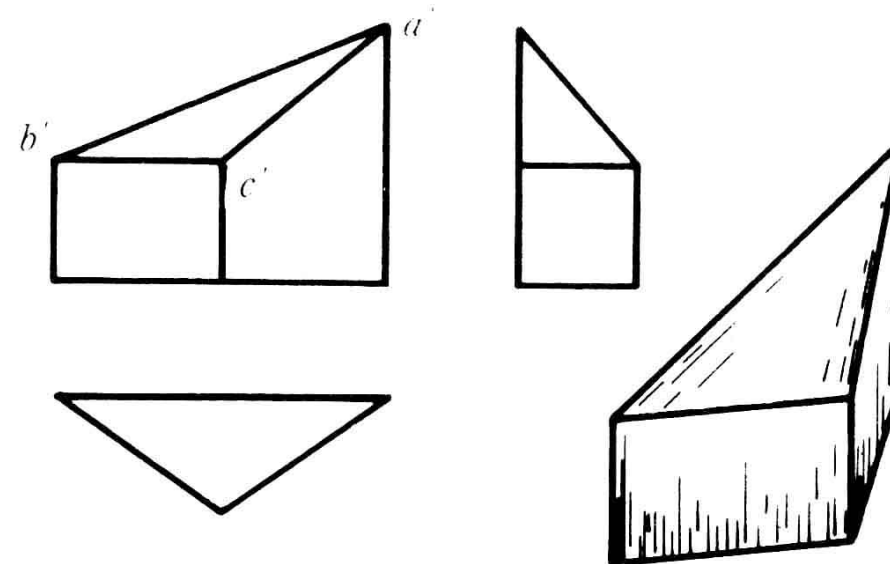


2-6 在三面图中标明直线的三面投影(不可见的投影加括号表示)

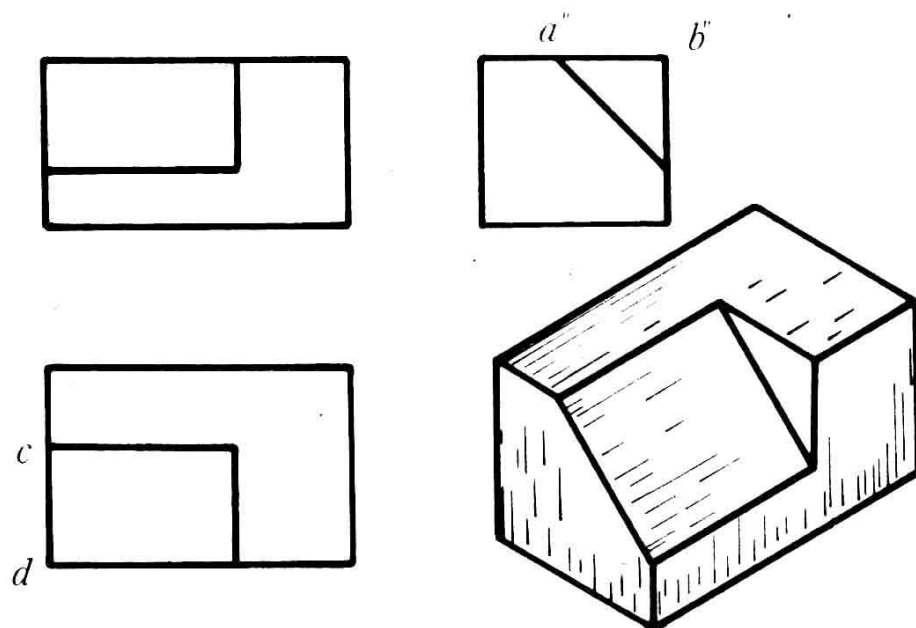
1 【例】



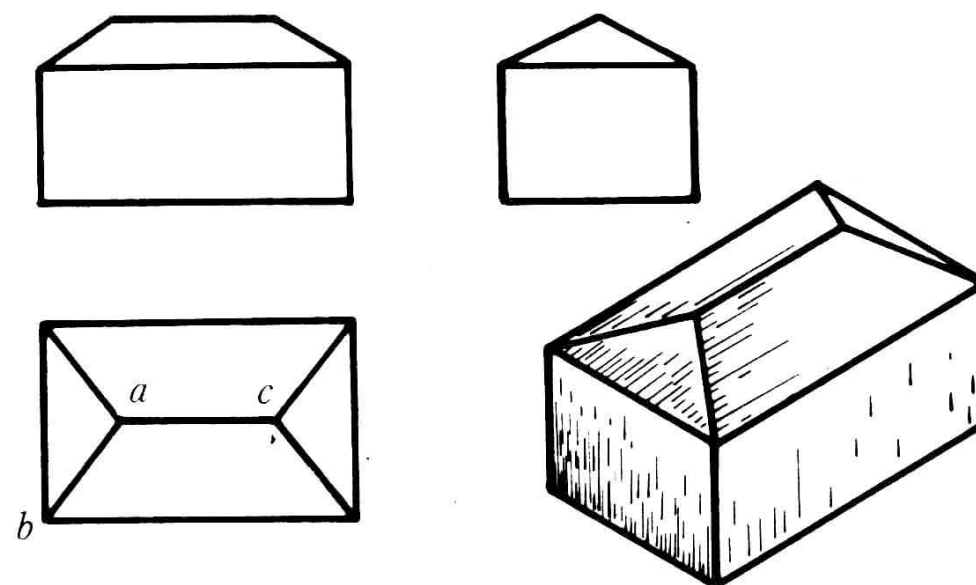
2



3



4



三、基本形体

3-1 根据立体图补全物体的三面图

说明(参见下图):

1. 立体图中的箭头是画正立面图的投影方向。如左边的三面图是以Y向投影作为正立面图, 右边的三面图是以X向投影作为正立面图

2. 本习题的立体图, Z轴竖放表示物体的高, X、Y轴与水平线的夹角为 30° , 表示物体的长和宽

3. 由立体图画三面图时, 凡与X、Y、Z

轴平行的轮廓线, 其长短可由立体图上直接量取。如 $X_1=AB$, $X_2=DE$; $Y_1=AE$, $Y_2=BC$; $Z_1=EF$, $DG\cdots\cdots$ 。必须注意, 凡与X、Y、Z不平行的轮廓线, 其长短不能由立体图上直接量取, 这类轮廓线应先根据可量线段确定两端点的位置再进行连线。如 cd 先由 Y_2 确定 c , Y_1 确定 d

