

King Mongkut's University of Technology Thonburi



Problem	Points
1.	
2.	
3.	
4.	
5.	
6.	
Total	

Mid Semester Exam
Academic Year 2017

CVE 111: Engineering Drawing

Date: 2nd October 2017

Time: 9:00 - 12:00

Student Name	Student ID number	Seat No.

Instructions :

1. Write your name and student ID number on every page.
2. There are 6 questions with marks written in the problem definition. Total number of marks for this exam is 20. You are strongly advised to attempt all questions.
3. This examination paper consists of 10 pages (including this one).
4. Read each question carefully, disobedience of instruction will result in 0 mark
5. All answer should be answered in these papers sheets.
6. No textbooks, dictionaries (electronic or book) and written materials are allowed in the examination room.
7. Scientific calculator is allowed. Use of smartphone device as a calculator is forbidden.

Examiner: Dr. Goran Arangjelovski
Tel. 02-470-9146

This examination paper has been approved by the Department of Civil Engineering

Assoc. Prof. Sutat Leelataviwat
Head of the Civil Engineering Department

1. For the following figures (1.a through 1.e.), draw the missing projection and the isometric projection. Use the grid provided (5 points).

<p>Draw top view</p> <div style="text-align: right; font-weight: bold; font-size: 1.2em;">1.a</div>	<p>Draw isometric projection</p> <div style="text-align: right; font-weight: bold; font-size: 1.2em;">1.a</div>
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<p>Draw right side view</p> <div style="text-align: right; font-weight: bold; font-size: 1.2em;">1.b</div>	<p>Draw isometric projection</p> <div style="text-align: right; font-weight: bold; font-size: 1.2em;">1.b</div>
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Draw right side view **1.c**

The front view shows a rectangular block with a smaller rectangular section cut out from the top-left corner. The right side view shows a rectangle with a diagonal line from the top-left corner to the bottom-right corner.

Draw isometric projection **1.c**

Draw top view **1.d**

The top view shows a rectangular object with a trapezoidal cutout on the left side and a square hole in the center. The right side view shows a stepped block with three distinct horizontal levels.

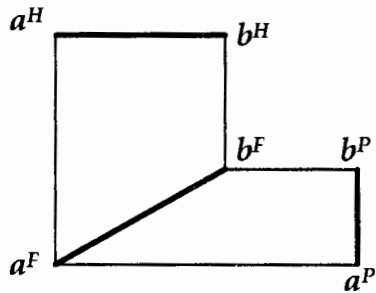
Draw isometric projection **1.d**

Draw front view **1.e**

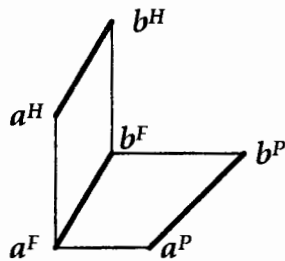
The front view shows a trapezoidal object with a diagonal line from the top-right corner to the bottom-left corner. The right side view shows a rectangle with a diagonal line from the top-left corner to the bottom-right corner and a vertical dashed line in the center.

Draw isometric projection **1.e**

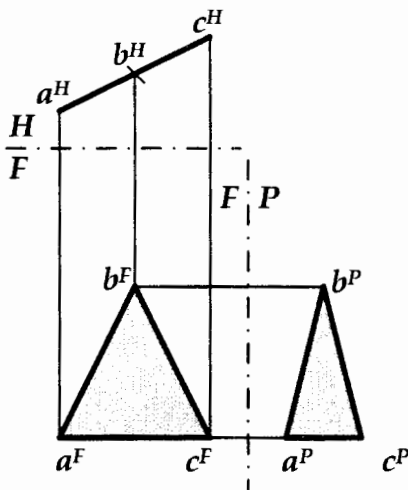
2. An object (line or triangle) is given with its orthogonal projections. For each case, explain the position of the line. Identify in which projection is the true distance or shape. (3 points)



Answer:



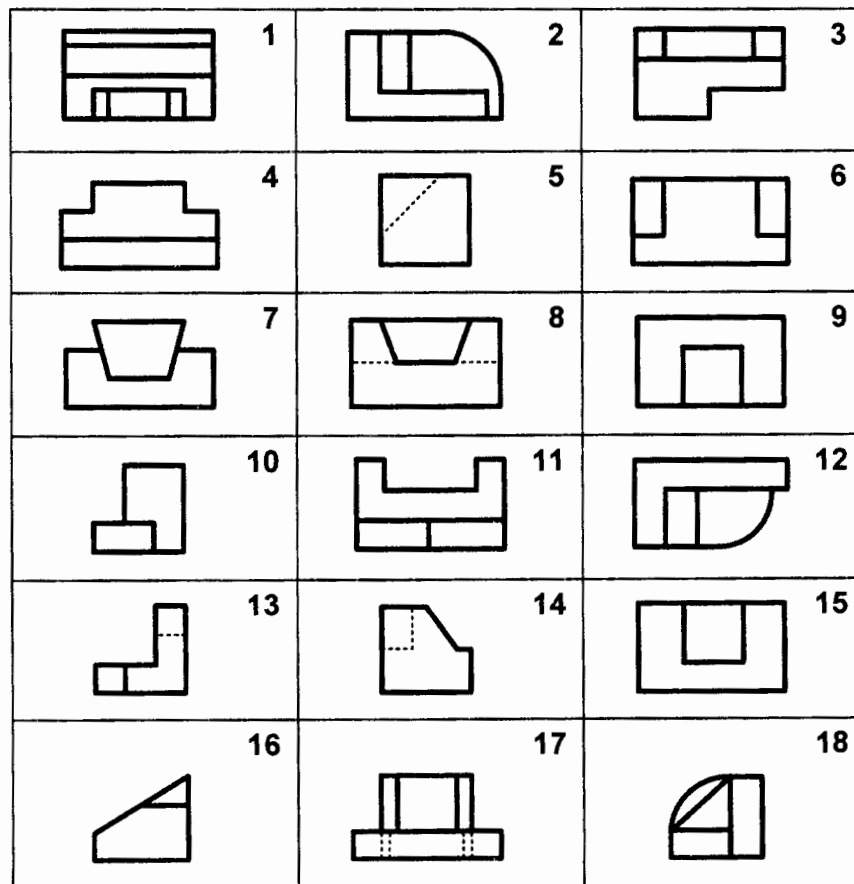
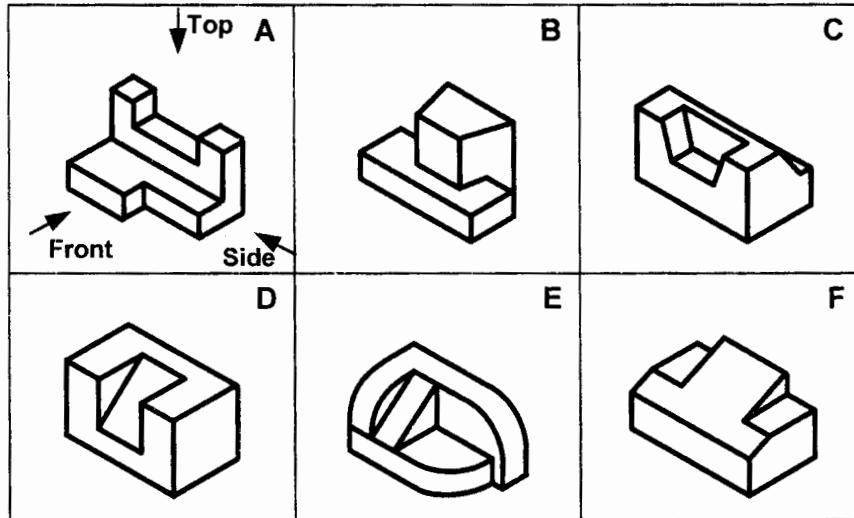
Answer:



Answer:

3. Six objects are drawn in isometric projection (Figures A through F). On Figures 1 through 18 orthographic projections are given for object on figures A through F. Match the orthographic projections by view (front, top and side) and the objects. Write the number of the projection in the given table considering the figure and object (3 points).

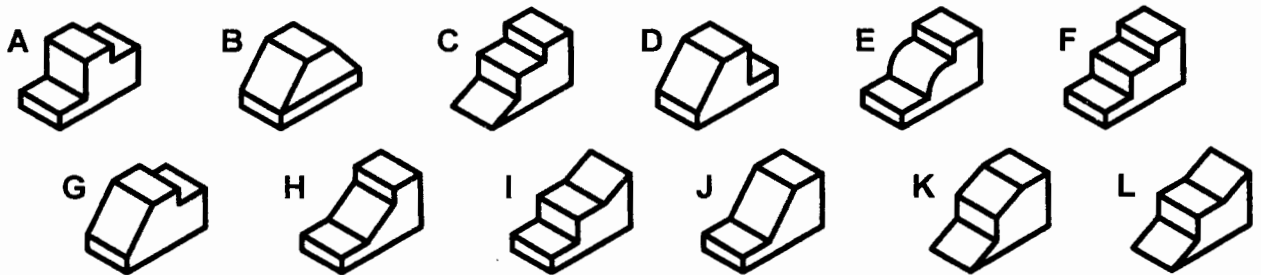
Proj Object	A	B	C	D	E	F
Front						
Top						
Side						



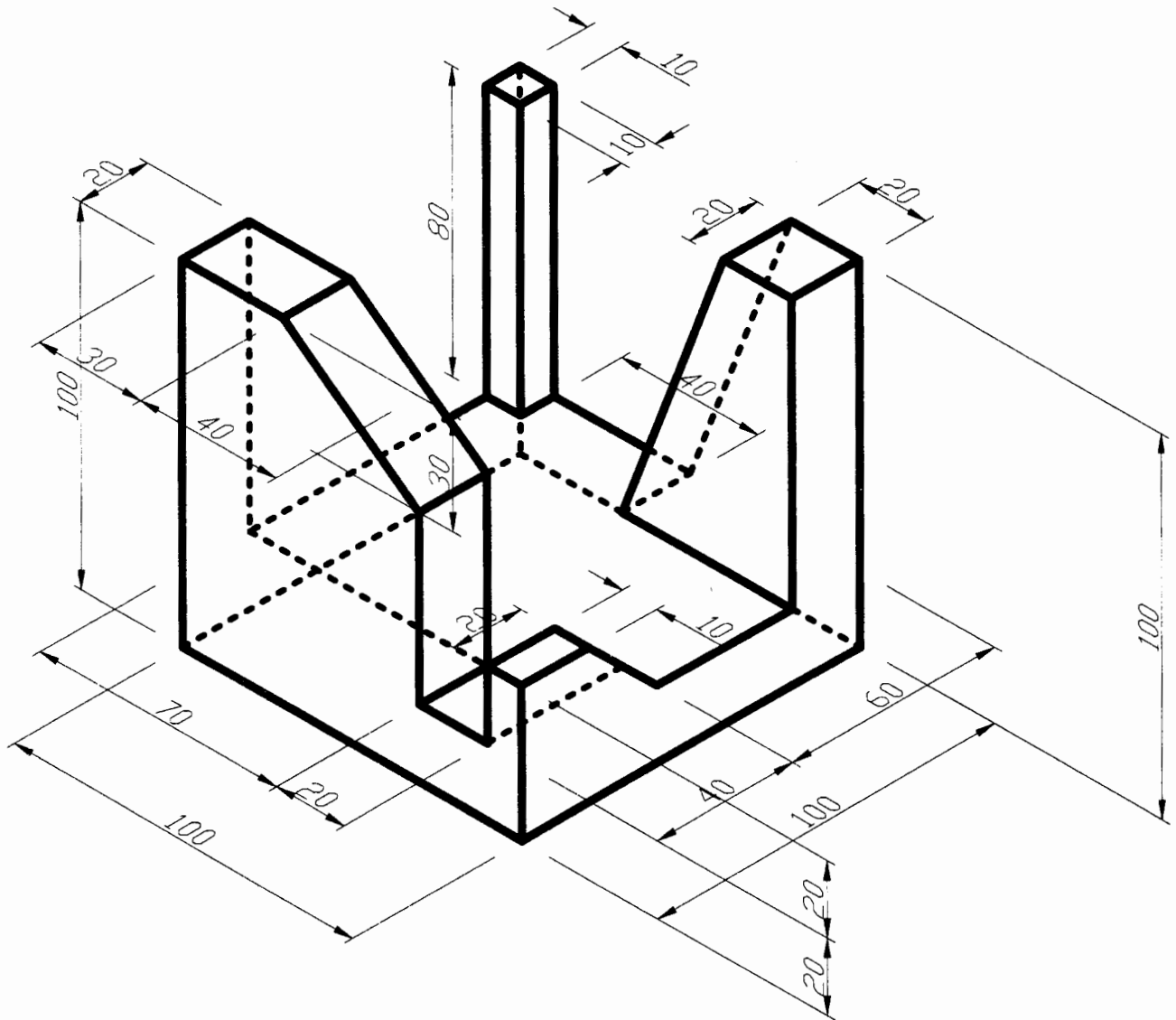
4. Study the two types and complete the table by matching the numbered orthogonal drawings with the same isometric view. (Number of isometric view is intentionally more than the number of orthogonal projections.) (2 points)

	1	2	3	4	5	6	7	8	9	10
Isometric Projection Letter										

1		2		3		4		5	
6		7		8		9		10	



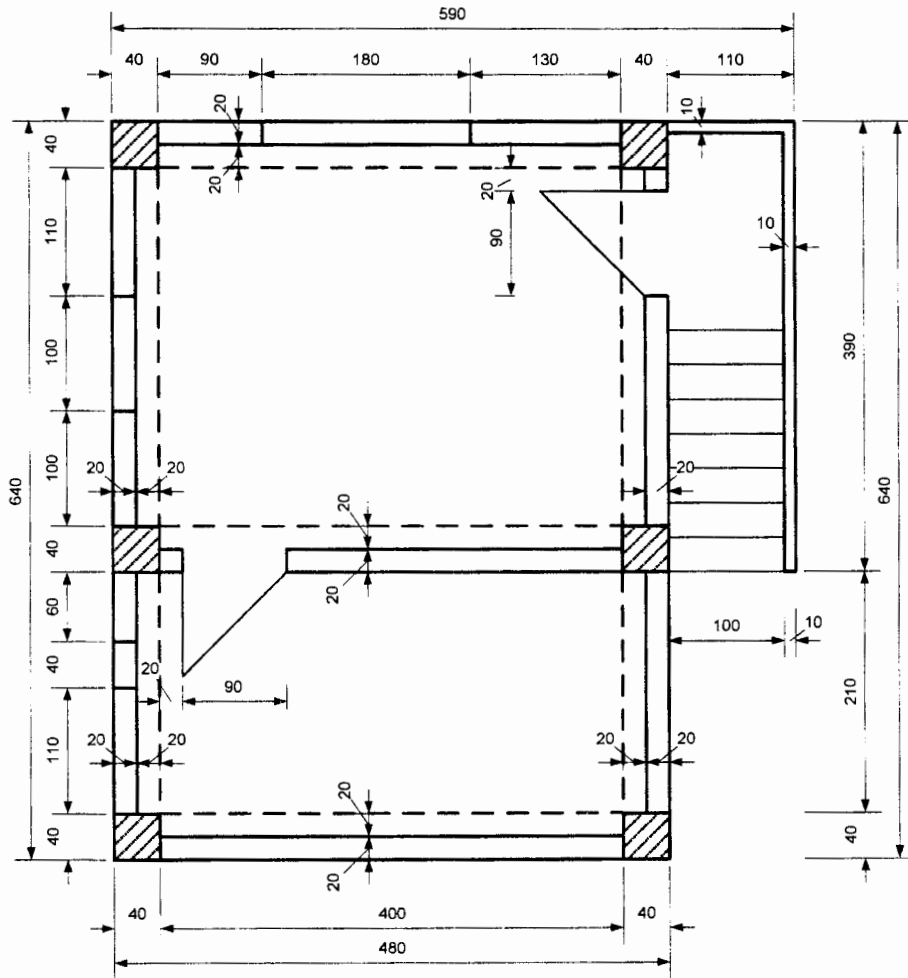
5. For the given figure, draw the orthogonal projections in third angle projection; front, top and right side view (draw them on the next page). The scale ratio is 1:20. All units are in centimeters. (4 points).



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On this page, draw the problem No.5

6. Draw the floor plan in given scale ratio (draw on the next page). The scale ratio is 1:50. All units are in centimeters. (3 points).



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On this page, draw the problem No.6