School: Ba Sangam College   **Year/Level: 13**   Name: _____

Subject: Technical Drawing   **Worksheet 19**   Year: _____

Strand	Geometry
Sub Strand	Plane and Space Geometry
Content Learning Outcome	Define the terms and use the knowledge to find Dihedral angle

Worked Example 2:

It is desired to find the dihedral angle between the two given planes, **ABD** and **ACD**, having the line of intersection of the two planes given. An auxiliary elevation view is drawn showing the line of intersection **AD** in its true length. The inclined view 2 is then drawn to show the line of intersection as a point. This view also shows the two given planes as edges. The dihedral angle is measured between the two edge views. Since inclined view 2 shows the edge views of both planes, an additional view projected from each edge view will show the true size of each plane. Inclined view 3 shows the true size of plane **ACD**.

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Name: _____
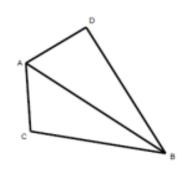
Year: _____

QUESTION 1   **(15 marks)**

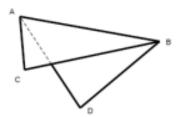**Given:**   A typical truss with loads acting on it and its sketch not drawn to scale.

Required:

FIND THE TRUE ANGLE BETWEEN TRIANGLES ABC AND ABD

a).   Find the TL of the line between the planes AB and project points C and D into the Auxiliary of the TL AB   **(3 mark)**

b).   Find the TL line AB as a point and project points C and D into the second Auxiliary with pint AB. This will form the edge view of both the surfaces.   **(4 marks)**

c).   Measure angle between surfaces (Dihedral Angle)   **(2 marks)**
_____

d).   Find the true shape of both the surfaces.   **(4 marks)**

e).   Shade the visible surfaces   **(2 marks)**

(a)			
1	Accuracy	1	
2	Correct line work	1	
3	Correct TL	1	
(b)			
4	Accuracy	1	
5	Correct line work	1	
6	Correct edge view	2	
(d)			
7	Accuracy	1	
8	Correct line work	1	
9	Correct true shape	2	