Faculty of Power and Aeronautical Engineering, IAAM, ENGINEERING GRAPHICS Exercise 3S Division of Fundamentals of Machine Design $\qquad$ PIERCING POINTS

| PROBLEMS |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|  |  |  |  |  |  |  |  |

Defining the point of intersection of a plane pierced by a straight line (general)


Faculty of Power and Aeronautical Engineering, IAAM, ENGINEERING GRAPHICS Exercise 3S

## Division of Fundamentals of Machine Design

24. Find the edge of intersection of planes $\omega \perp \pi_{2}$ and $\beta \perp \pi_{2}$

$x_{12}$
25. Find the edge of intersection of plane $\gamma(\mathbf{A}, \mathbf{B}, \mathbf{C}) \perp \pi_{1}$ and the horizontal projection plane $\pi_{1}$

26. Find the edge of intersection of planes $\alpha \perp \pi_{2}$ and $\beta \perp \pi_{1}$

27. Find the edge of intersection of planes $\varphi \perp \pi_{2}$ and $\xi(\mathbf{A}, \mathrm{m})$

28. Find the point of intersection of line $\mathbf{n}$ and plane $\alpha(x, d)$

$\qquad$
29. A bent plate $\mathbf{A B C D}$ is located as shown in the drawing. The bend line is $A C$. A cable $X Y$ must pass through the bent plate. Determine the point or points where the cable will pass through the bent plate.


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30. Find the edge of intersection XY of the triangle ABC and quadrangle EFGH. Mark the visible part of the triangle.


