Faculty of Power and Aeronautical Engineering, IAAM Division of Fundamentals of Machine Design

Engineering Graphics
Exercise 6S Student's name

QUADRIC SURFACES

| PROBLEMS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 44 | 45 | 46 | 47 | 48 |
|  |  |  |  |  |



Projection of a quadric surface is limited by the contour which is a flat geometric figure.

View of a point belonging to the contour is a view of one point belonging to the surface.

View of a point inside the contour is a view of two points belonging to the surface.
44. Determine missing views of point $\mathbf{A}, \mathbf{B}, \mathbf{C}$ belonging to the surface of the sphere


Faculty of Power and Aeronautical Engineering, IAAM
Division of Fundamentals of Machine Design

47. Find missing views of points $\mathbf{C}$ and $\mathbf{D}$ belonging to the cone's surface
$\qquad$
46. Find missing views of contour generatrices $\mathbf{t}_{1}, \mathbf{t}_{2}, \mathbf{t}_{3}, \mathbf{t}_{4}$ of the cone's surface

$\qquad$
48. Determine contour generatrices of the surface of a horizontal cylinder which includes three given generatrices $\mathbf{t}_{1}, \mathbf{t}_{2}$ and $\mathbf{t}_{3}$, where $\mathbf{t}_{1}\left\|\mathbf{t}_{\mathbf{2}} \mid \mathbf{t}_{3}\right\| \boldsymbol{\pi}_{1}$, Determine also the missing view of point $\mathbf{A}$ belonging to the surface.
$\qquad$

| $\mathrm{t}_{3}{ }^{\prime \prime}$ |
| :--- |

$x_{12}$


