



TEHNIČKO CRTANJE

Osnove nacrtna geometrije-
Ortogonalno projiciranje

I deo

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Nacrtna geomerija:

Skup metoda za grafičko rešavanje prostornih problema crtanjem u ravni.

Zadatak nacrtnge geometrije je da svojim postupcima omogući:

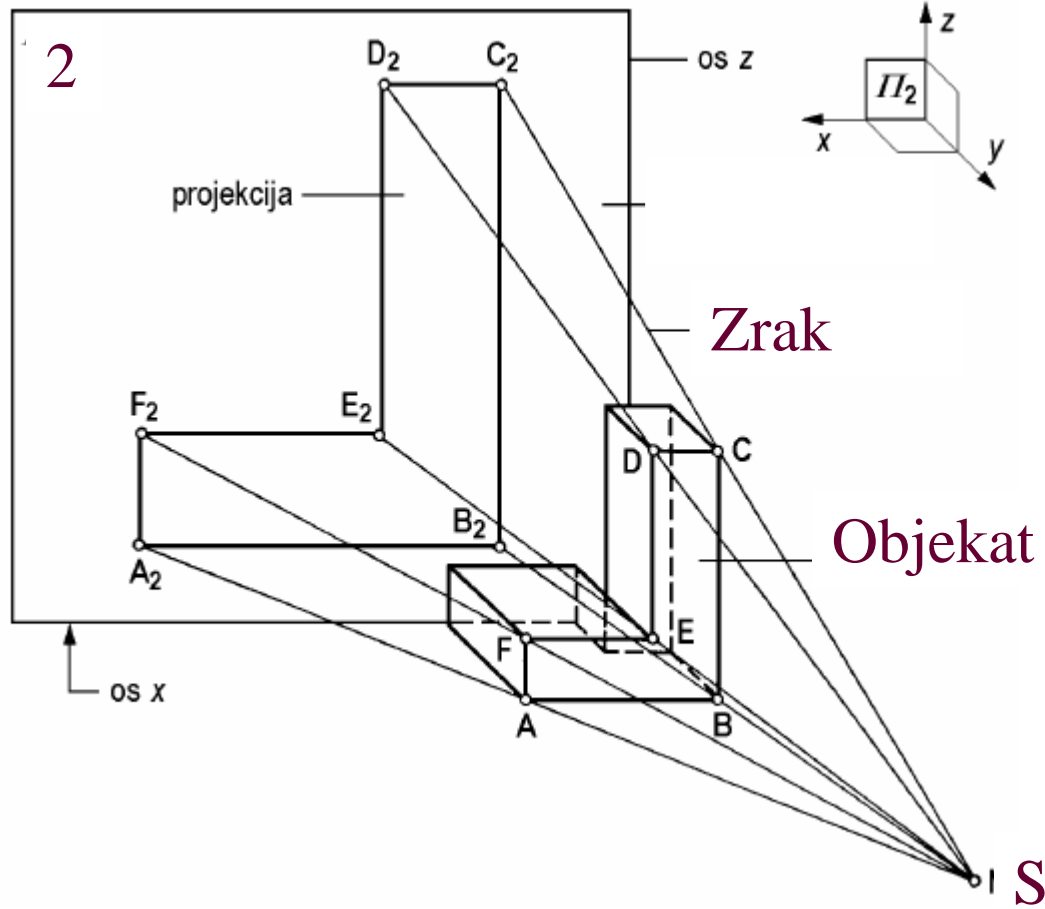
- lakše i jednostavnije prikazivanje nekog 3D objekta na ravni crteža,
- prostorno shvatanje nacrtanog objekta

Matematičar i inženjer Gaspard Monge, 1746-1818

-istovremeno posmatranje više projekcija na jednom crtežu

-povezao dve ortogonalne projekcije jednog predmeta dobijene projiciranjem na dve međusobno upravne ravni.

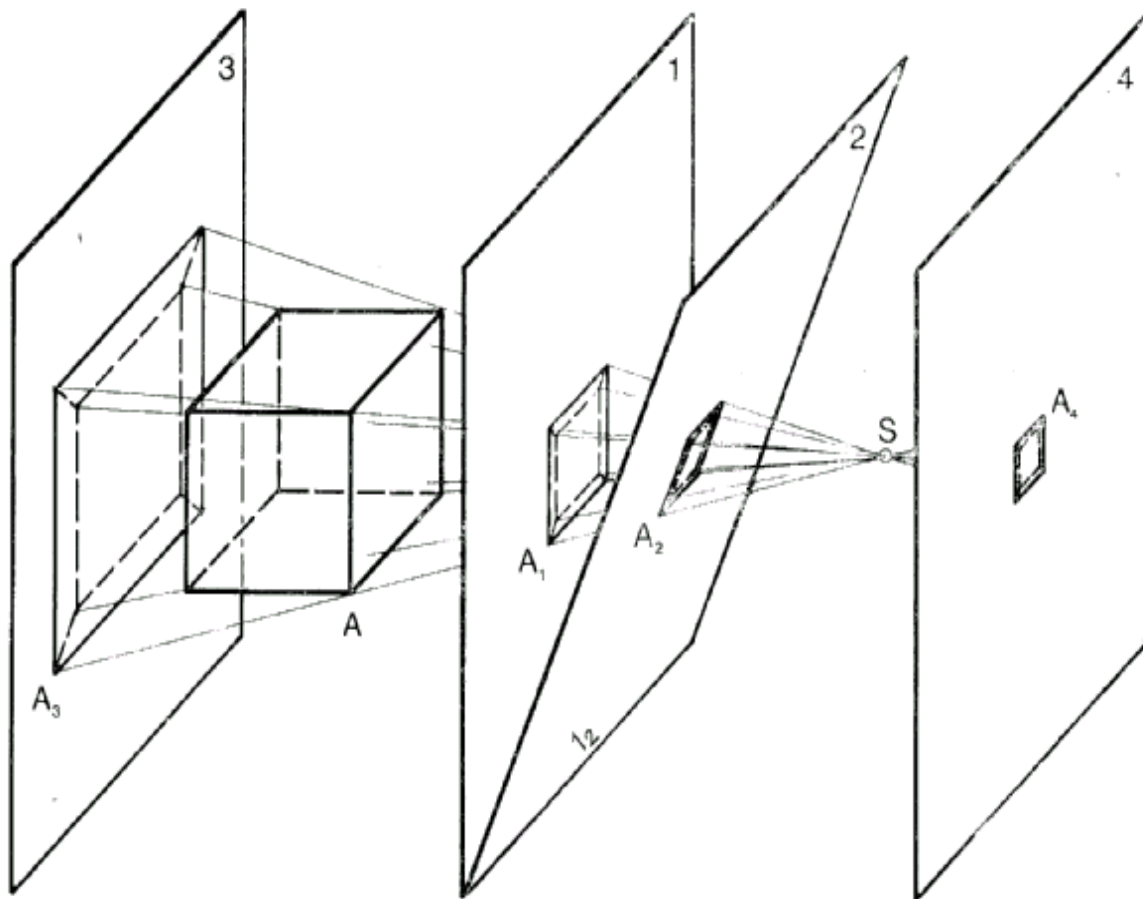
Centralno projiciranje:



2 – RAVAN

S – CENTAR
PROJICIRANJA

Centralno projiciranje:

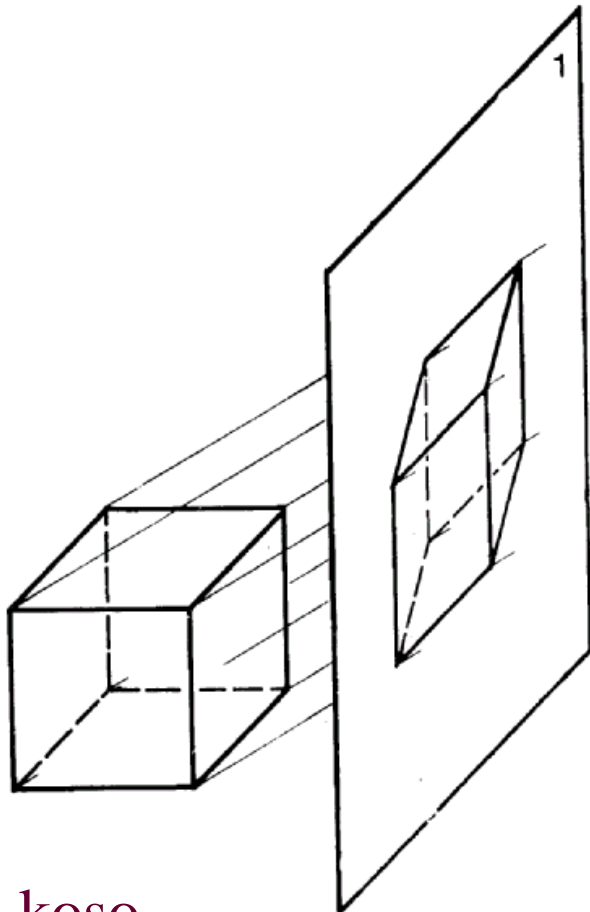


1,2,3 – RAVNI

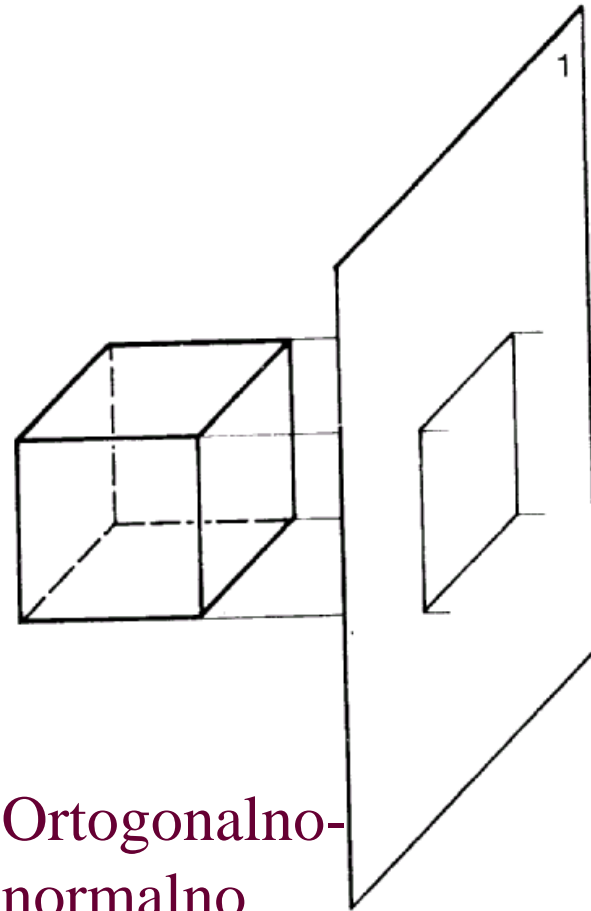
S – CENTAR
PROJICIRANJA

A - TAČKA

Paralelno projiciranje:

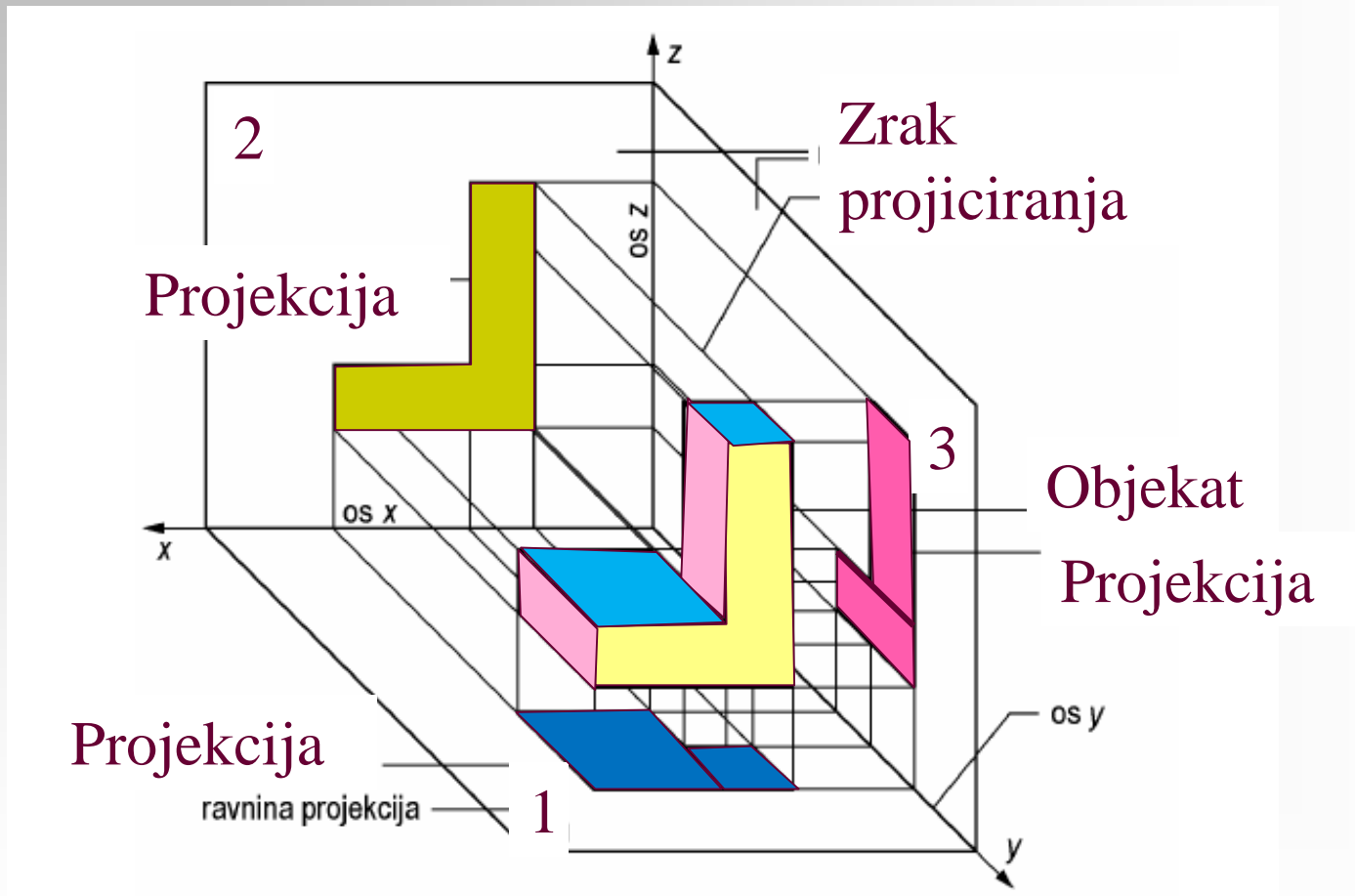


koso

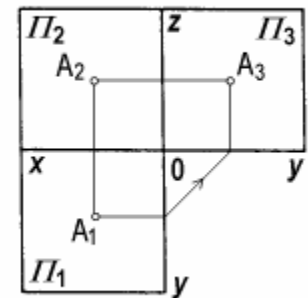
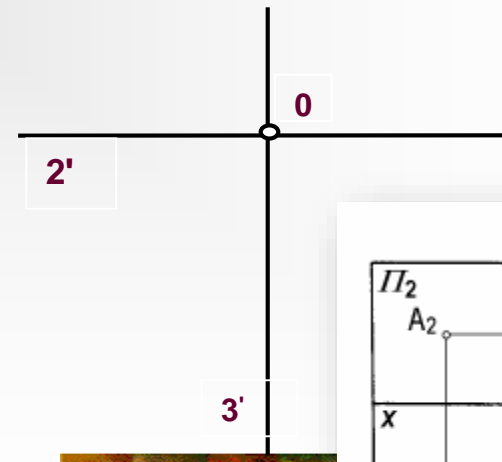
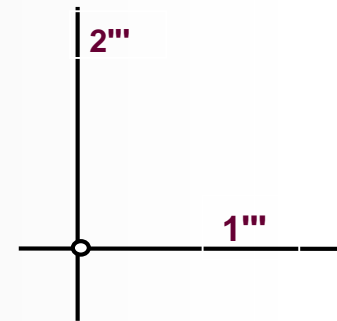
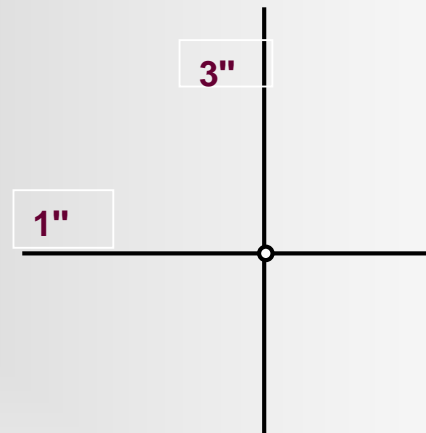
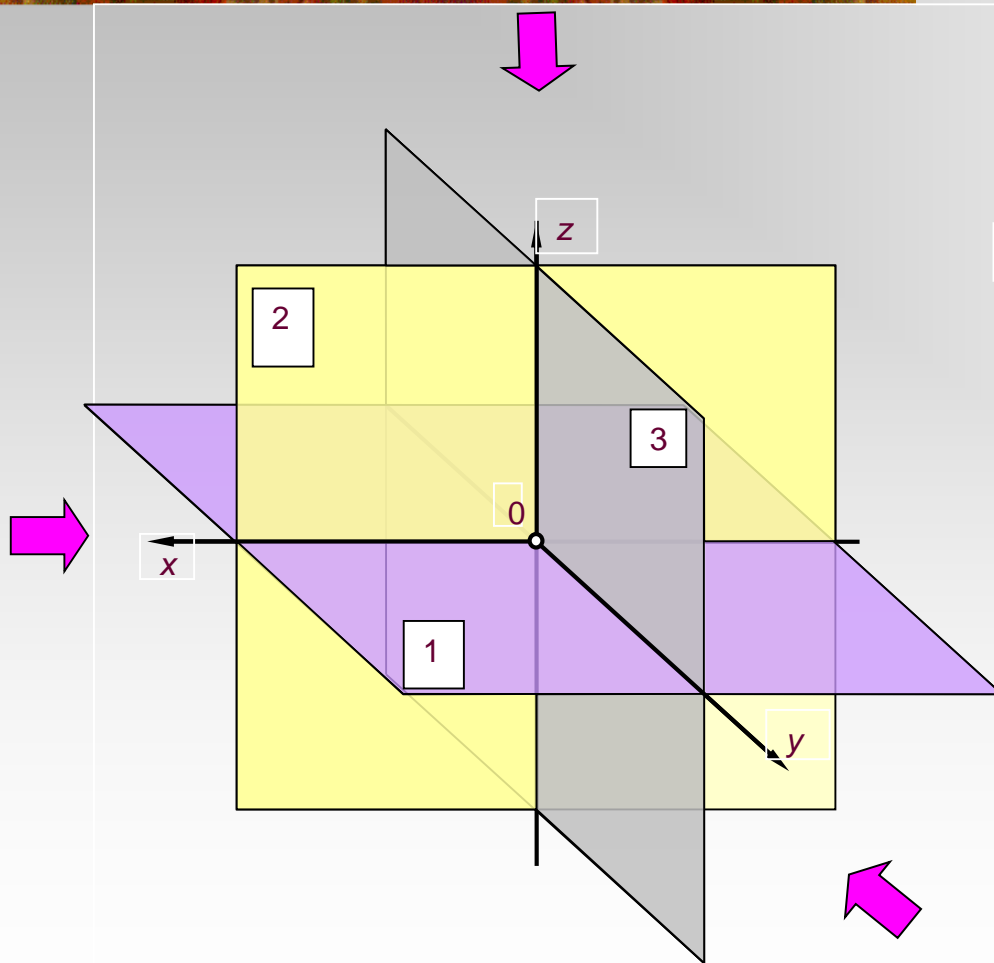


Ortogonalno-
normalno

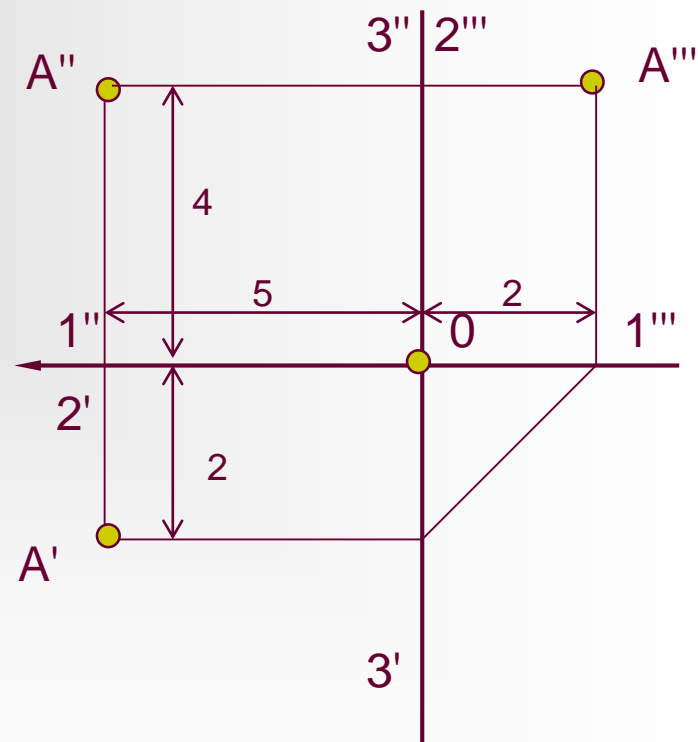
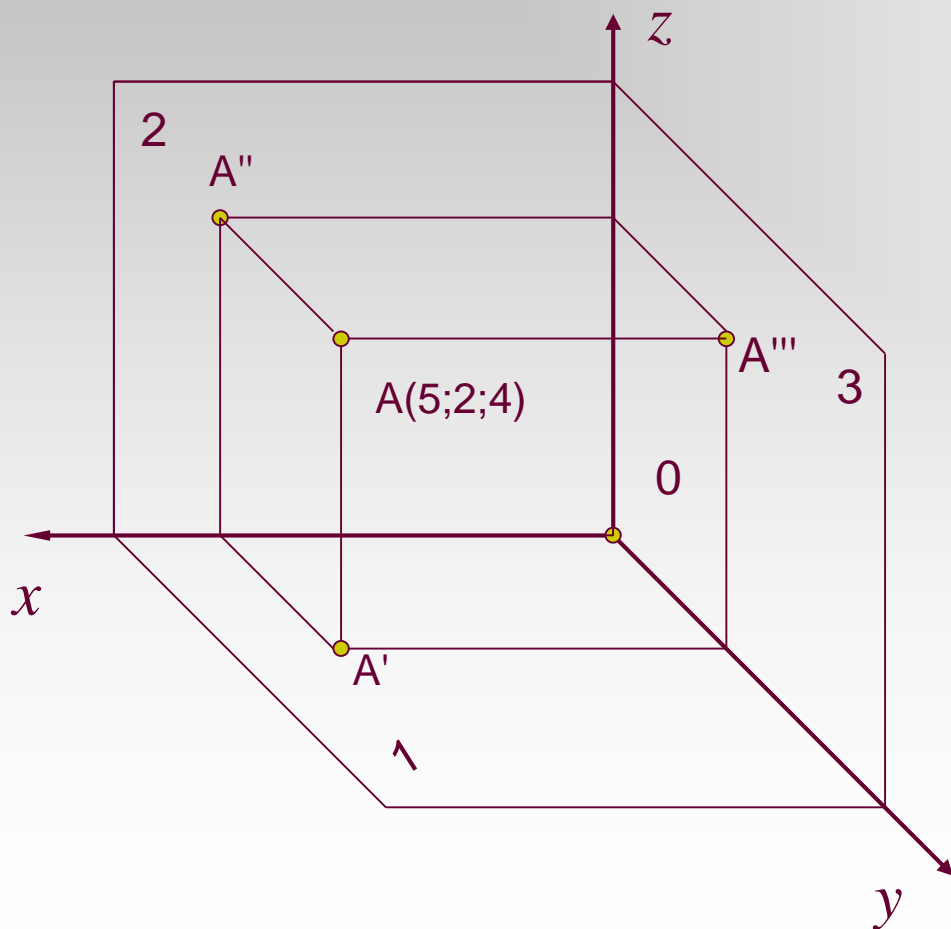
...Ortogonalno projiciranje:



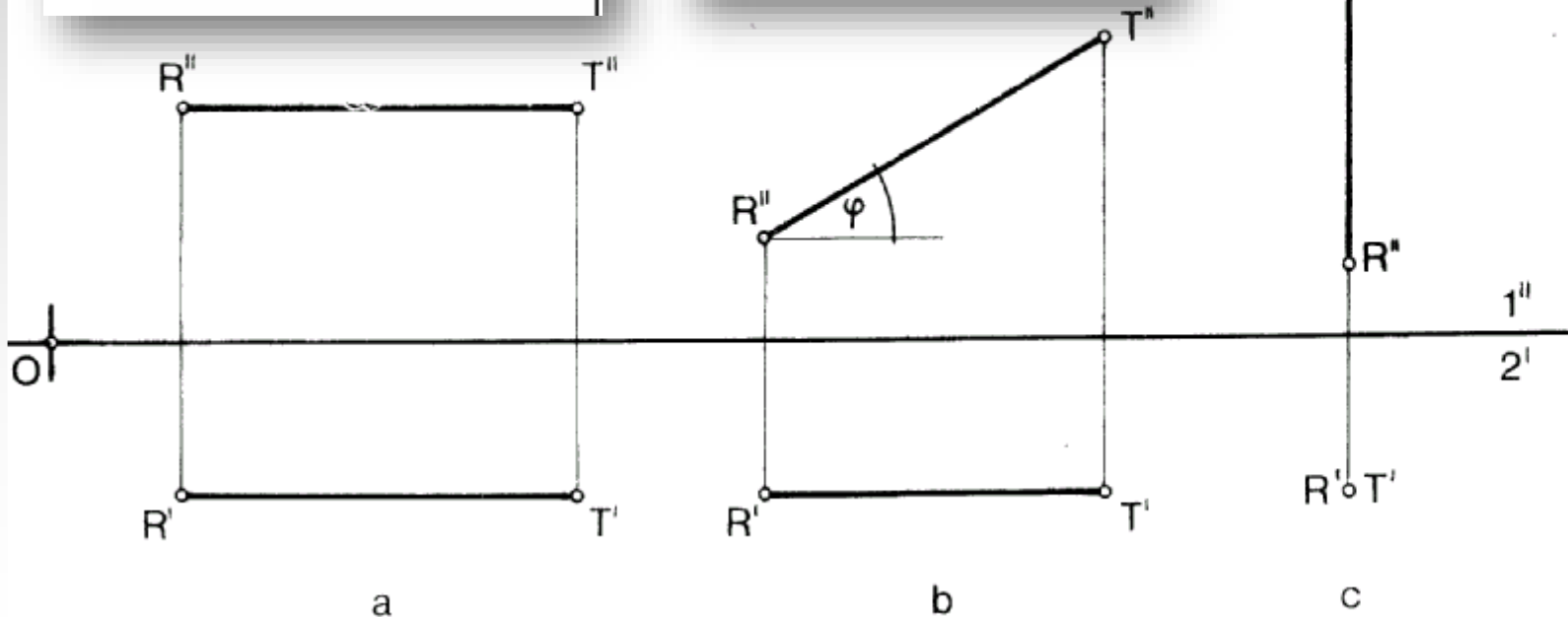
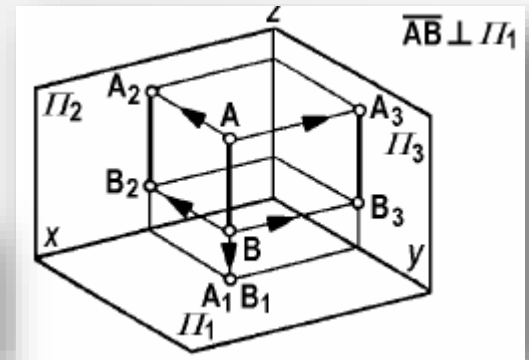
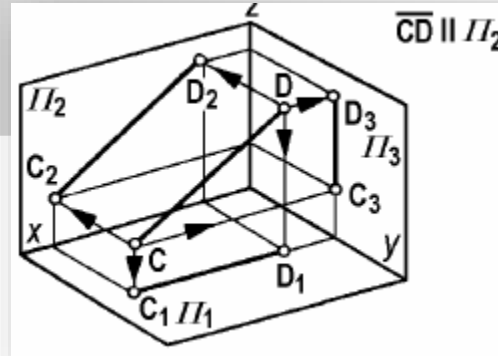
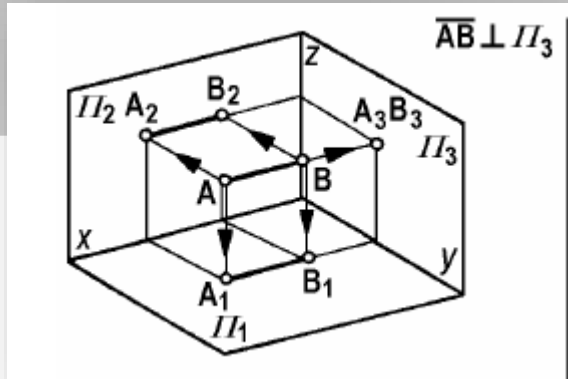
Ortogonalno projiciranje



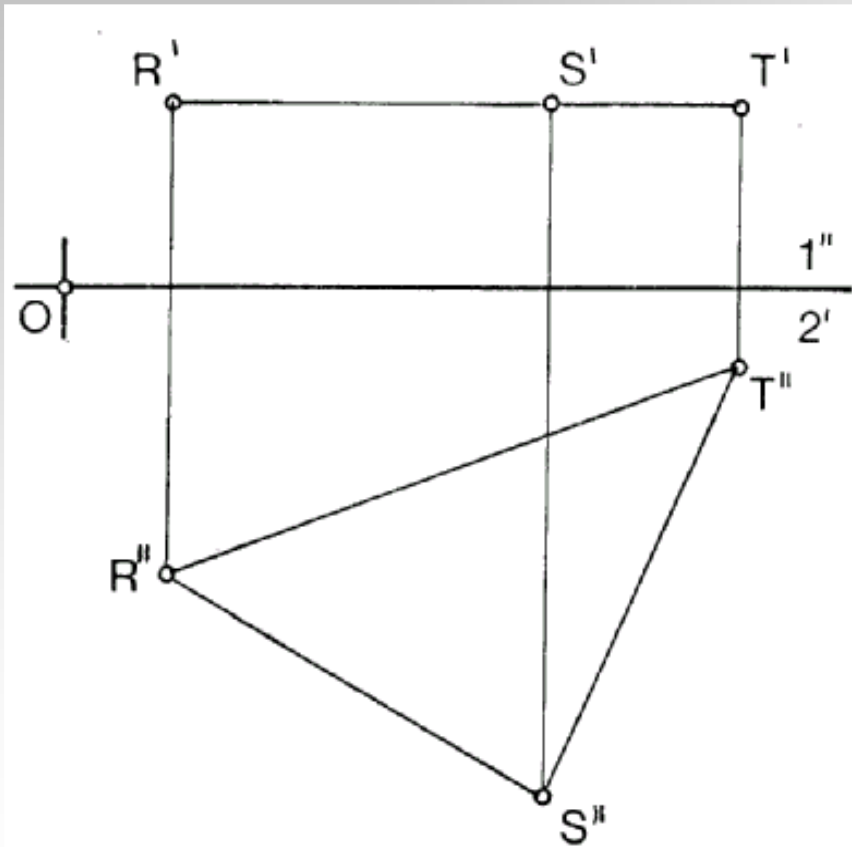
Projekcije tačke



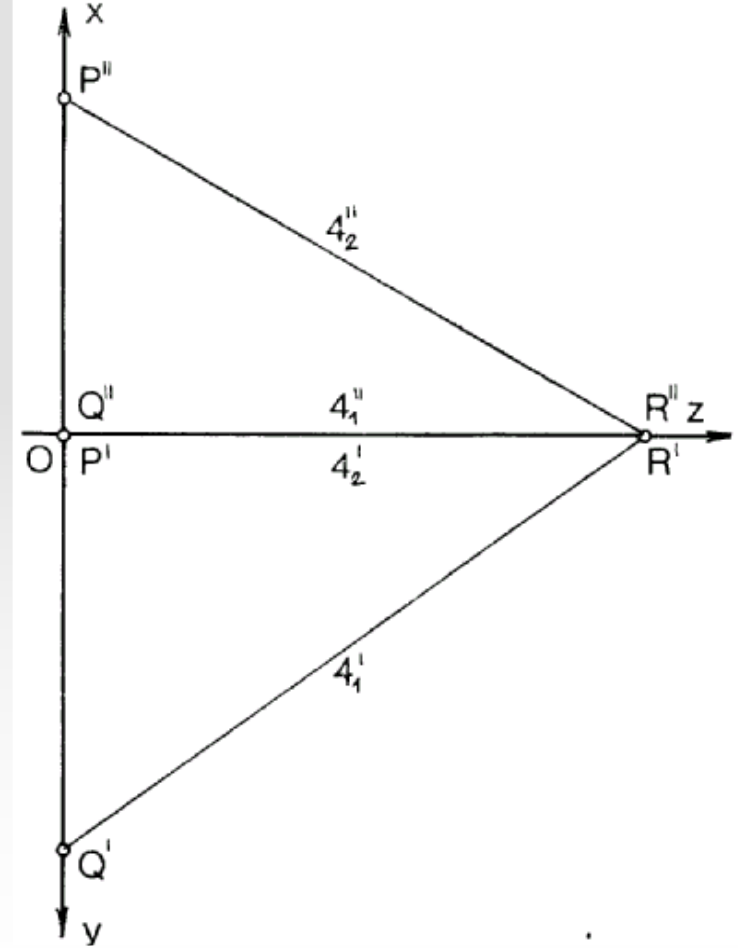
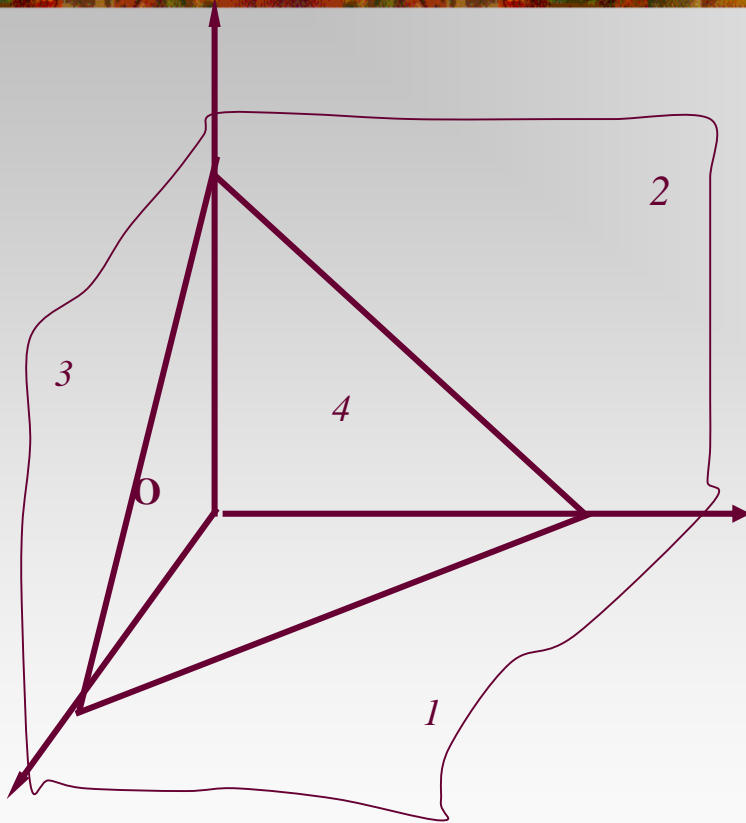
Položaj duži u odnosu na projekcijske ravni



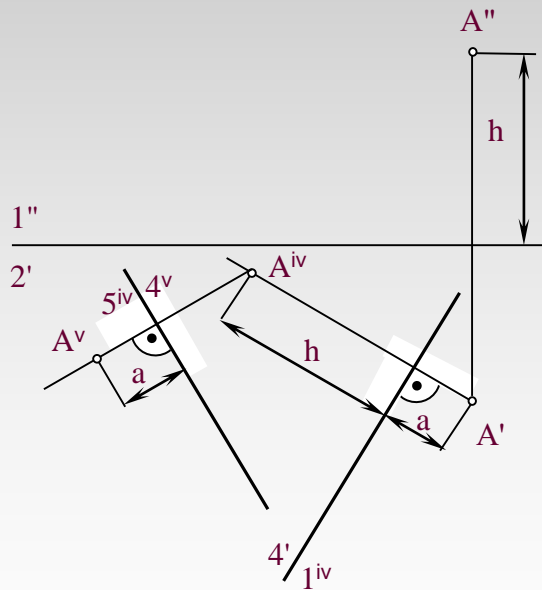
Projekcija trougla



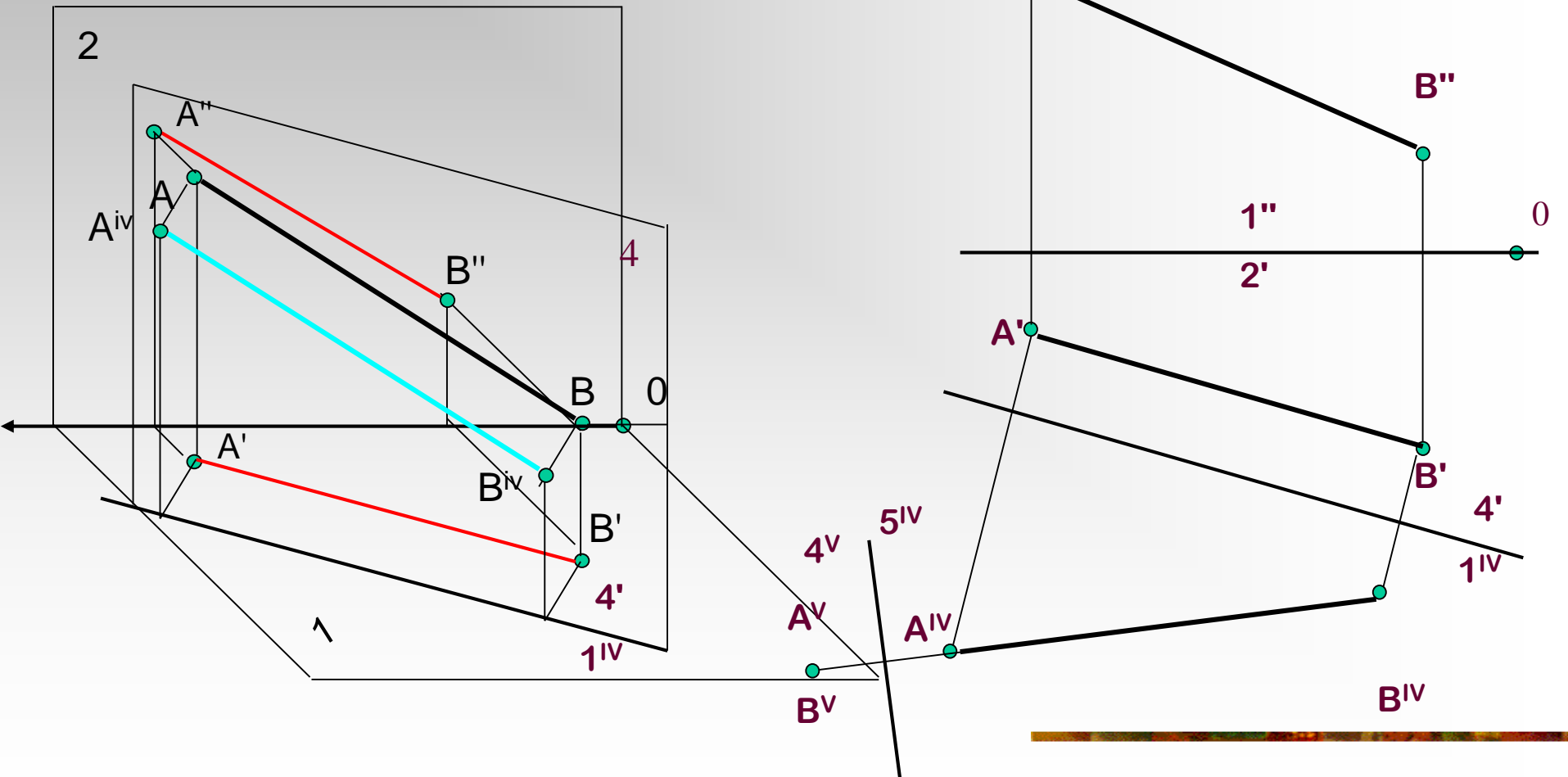
Projekcija ravni



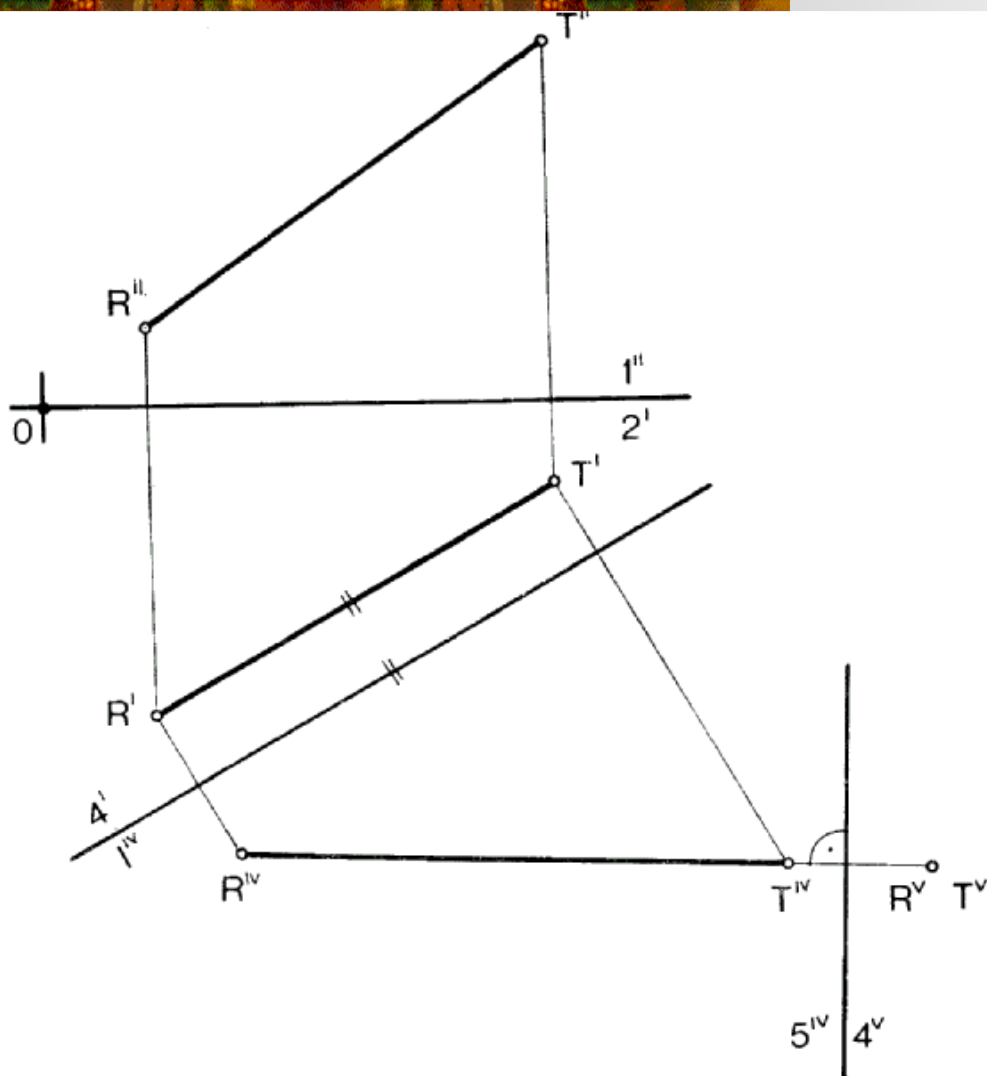
Transformacija tačke



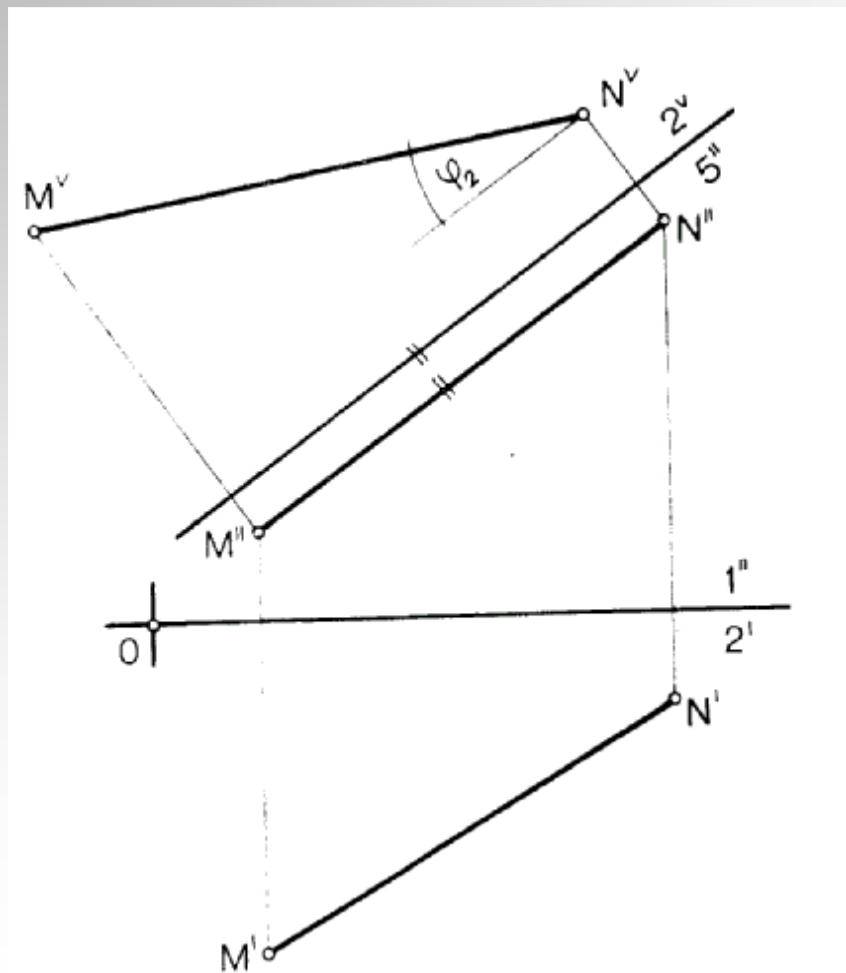
Transformacija duži



Dve transformacije duži



Transformacija duži



Transformacija ravni

