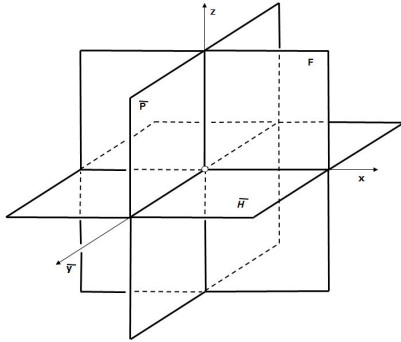

02

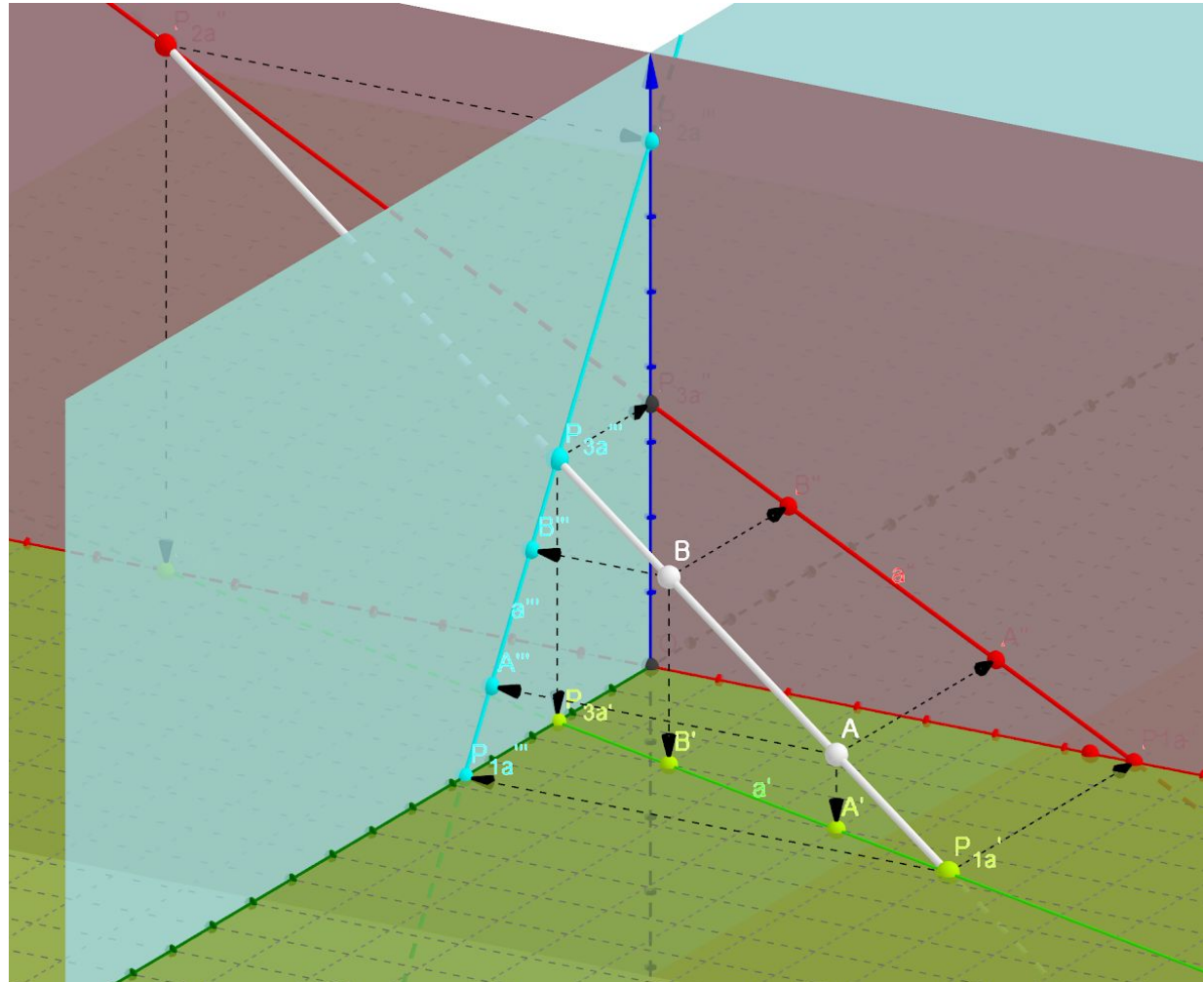
Prava. Prodori prave kroz projekcijske ravni. Nagibi prave.



A (10; 8; 2)

B (4; 6; 5)

Prava i prodori prave kroz H, F, P



$1a = PaH = P_1a$ - prodor prave a kroz horizontalnicu (x; y; 0)

$2a = PaF = P_2a$ - prodor prave a kroz frontalnicu (x; 0; z)

$3a = PaP = P_3a$ - prodor prave a kroz profilnicu (0; y; z)

Granične tačke vidljivosti su prodori kroz H, F i P ravni (tačke P1, P2, P3).

α = nagib prave ka horizontalnici

β = nagib prave ka frontalnici

γ = nagib prave ka profilnici

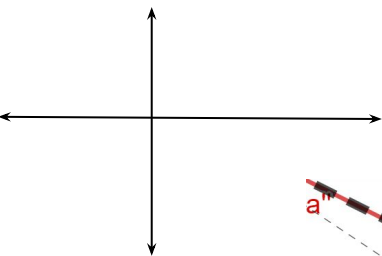
Zadatak

Prethodni zadatak nacrtati u ortogonalnoj projekciji

A (5; 4; 1)

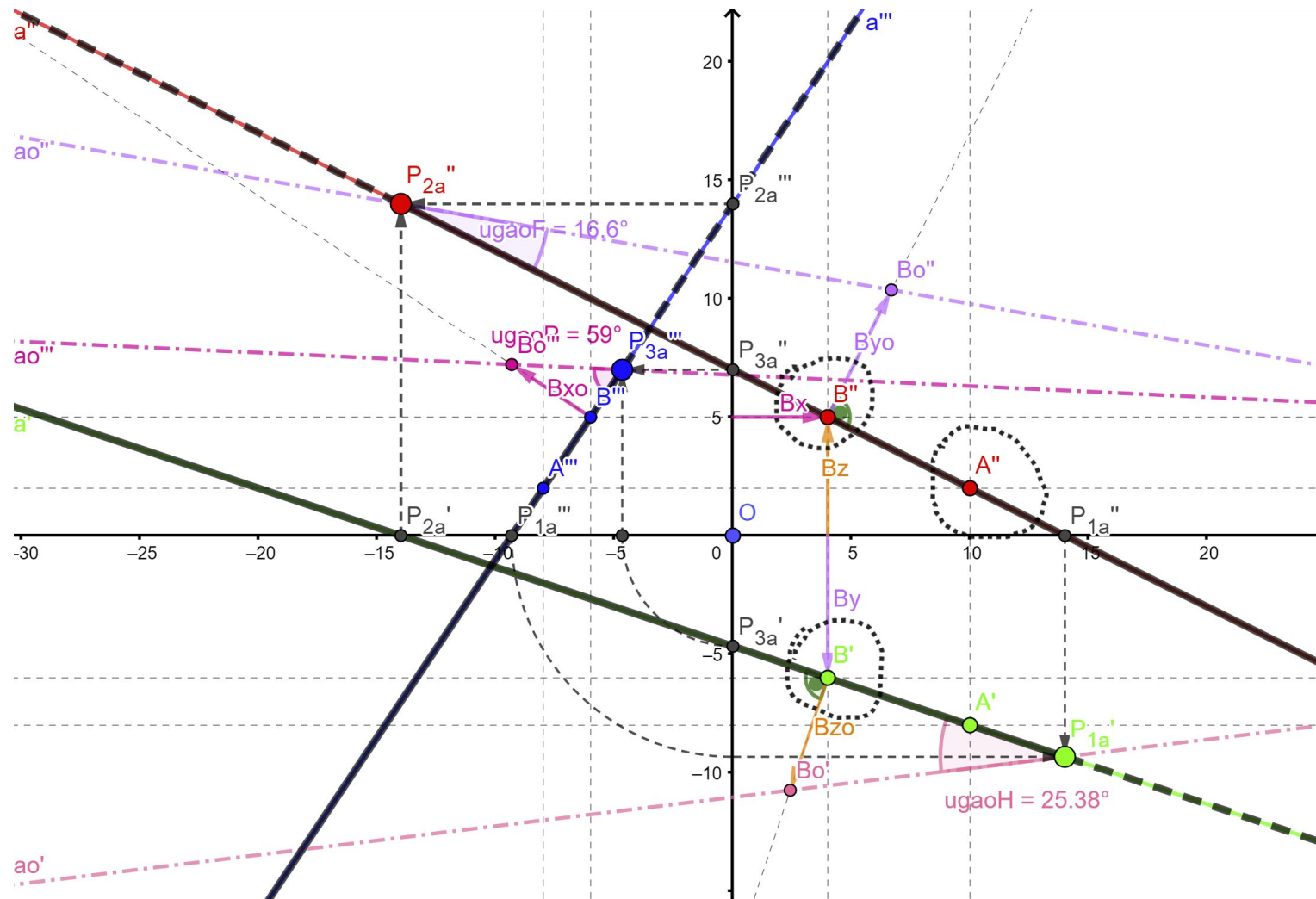
B (2; 3; 2,5)

Prodori prave u ortogonalnim projekcijama



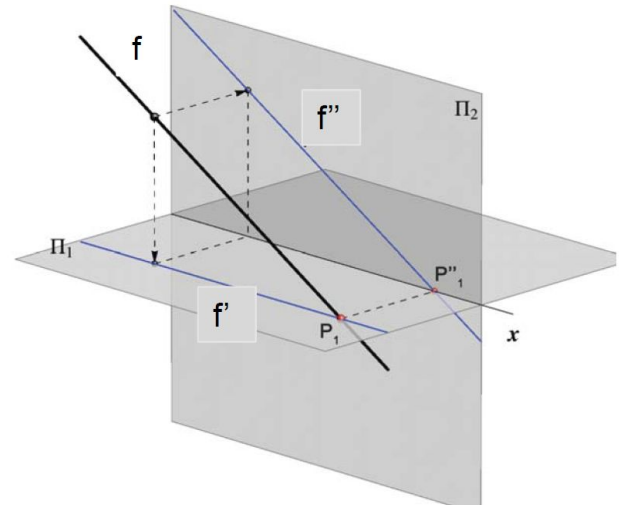
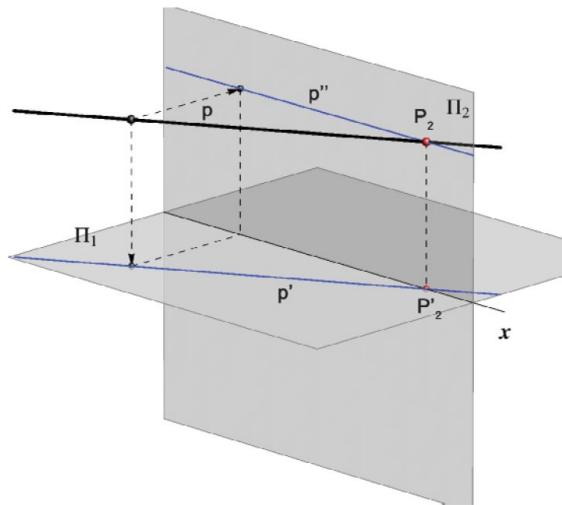
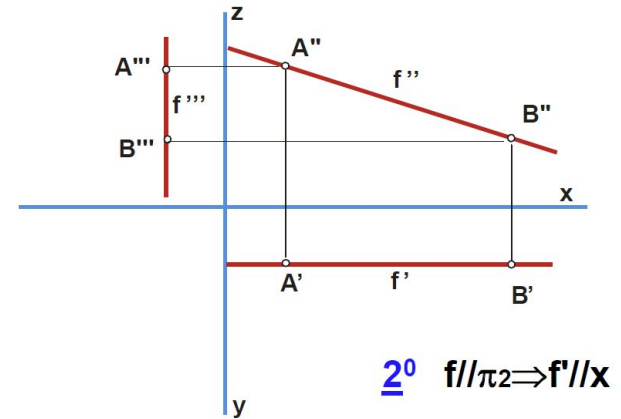
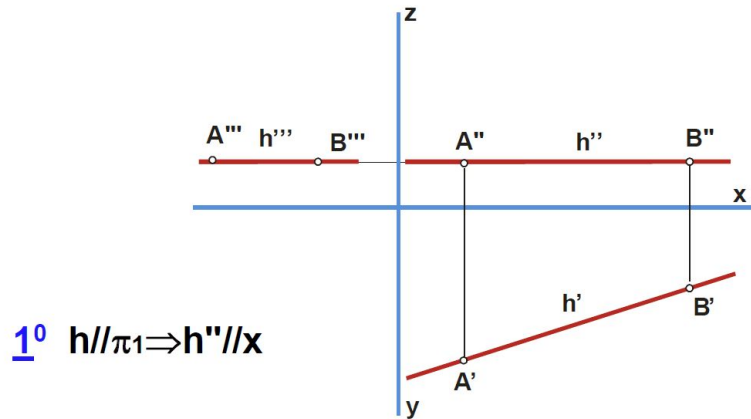
A (10; 8; 2)

B (4; 6; 5)

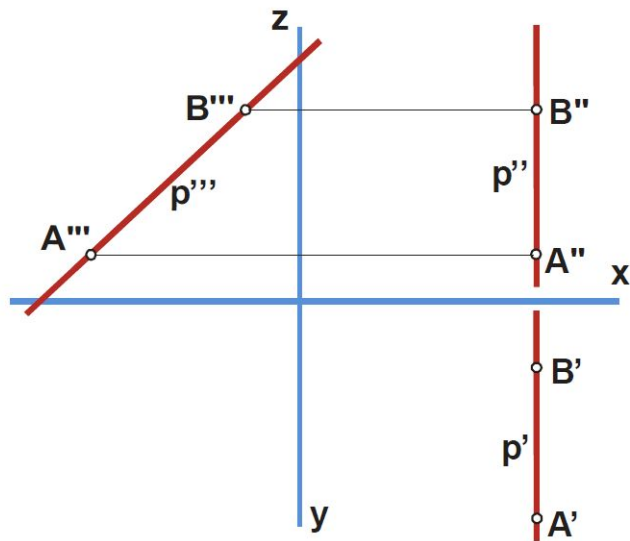


Prava u specijalnim položajima

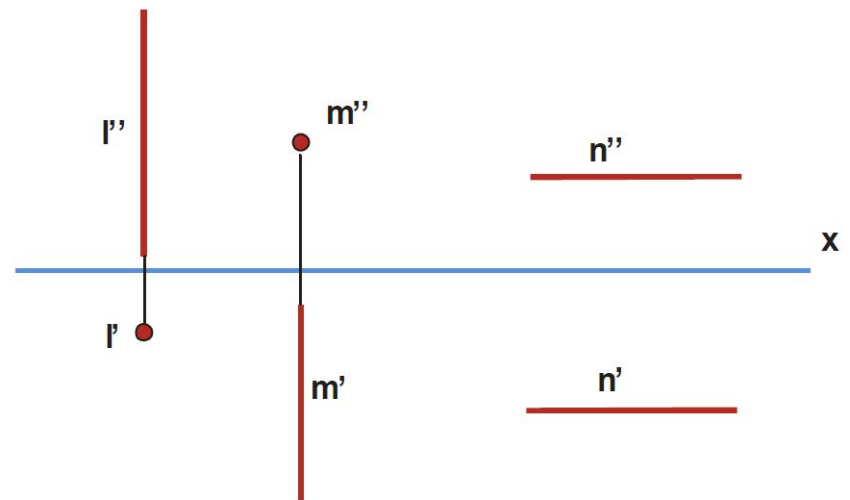
Prava je u specijalnom položaju ako je paralelna ili okomita na jednu od projekcijskih ravni



3^o $p // \pi_3 \Rightarrow p' \perp x \text{ i } p'' \perp x$



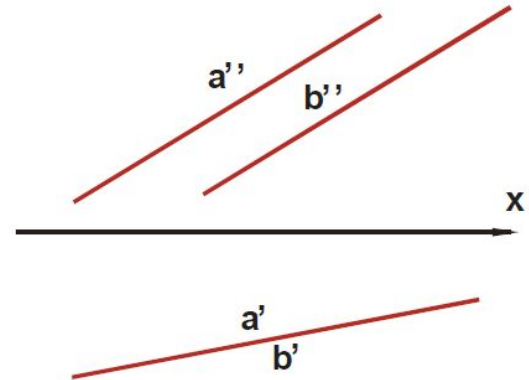
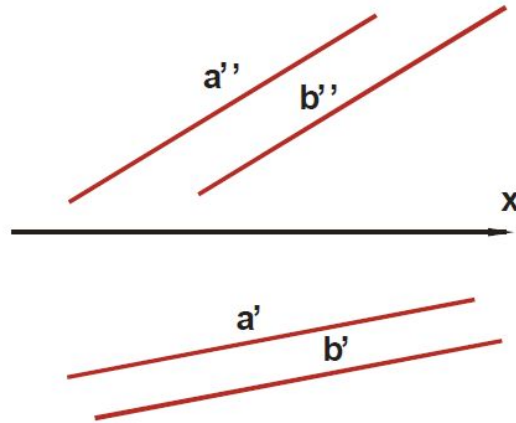
4^o $l \perp \pi_1 \Rightarrow l' \perp x$ 5^o $m \perp \pi_2 \Rightarrow m' \perp x$ 6^o $n \perp \pi_3 \Rightarrow n' // x // n''$



Međusobni odnosi pravih

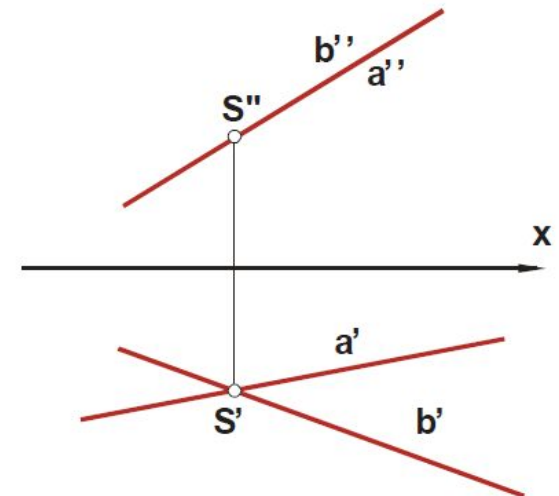
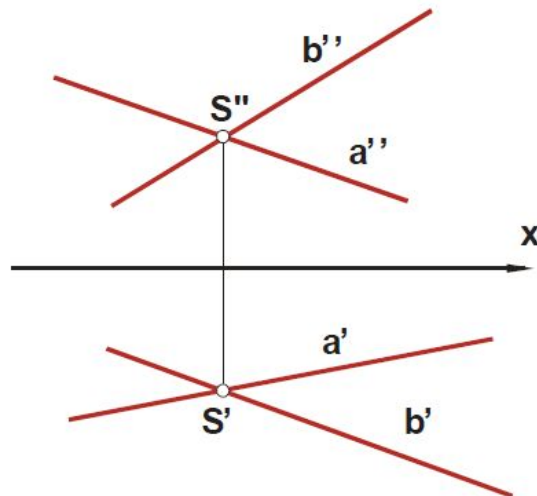
prave su paralelne

prave su paralelne u
projekcijama



prave se sijeku

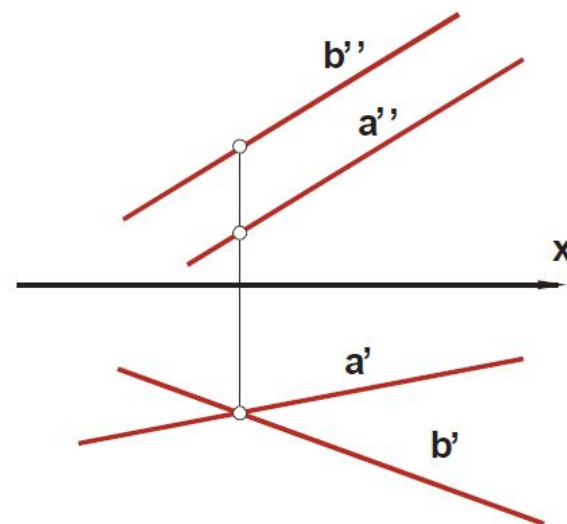
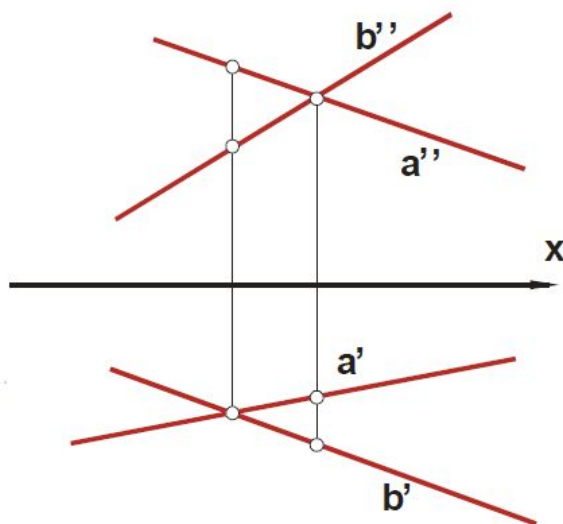
Presječna tačka S mora
biti na oba pravca i
njene projekcije S' i S''
se nalaze na istoj
ordinali



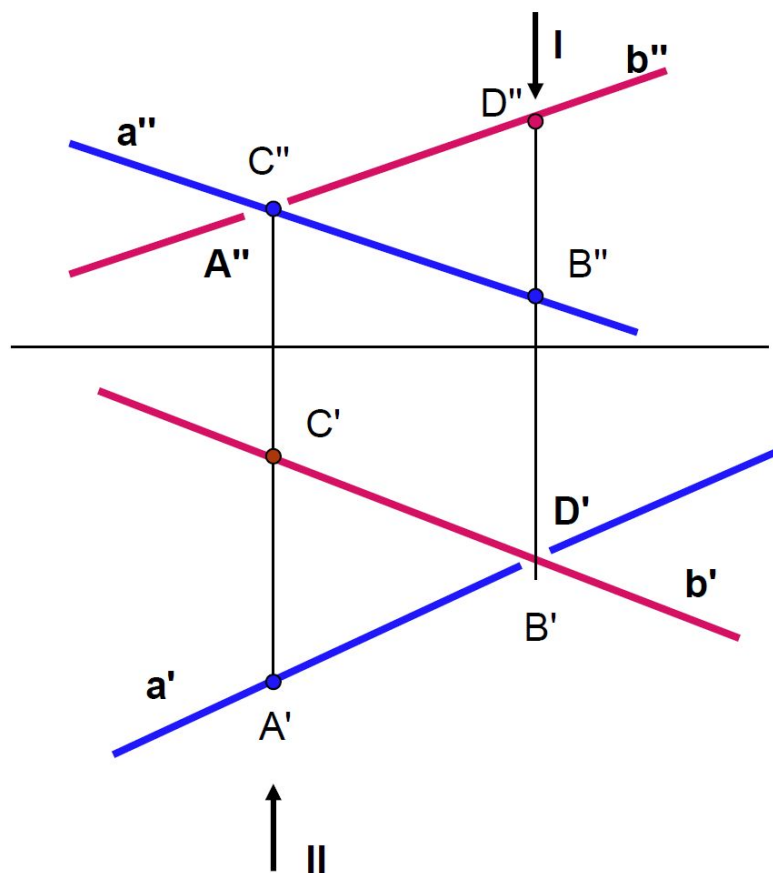
Međusobni odnosi pravih

prave su
mimoilazne

presjek prvih i drugih
projekcija nije na istoj
ordinali



Vidljivost mimoilaznih pravih



Zadatak

U kosoj i ortogonalnoj projekciji nacrtati pravu zadatu tačkom $A(6; 4; 2)$ i prodorom kroz frontalnicu $(1; ?; 4)$. Odrediti ostale prodore kroz projekcijske ravni.

Zadatak

U kosoj projekciji ($\alpha = 30^\circ$) nacrtati kvadrat ABCD koji je paralelan sa profilnicom i udaljen od nje 3 cm. Kvadrat je u odnosu na horizontalnicu rotiran za 45° . Tačka A je 1 cm iznad H i 4 cm ispred F. Ilica kvadrata je 3 cm.
