

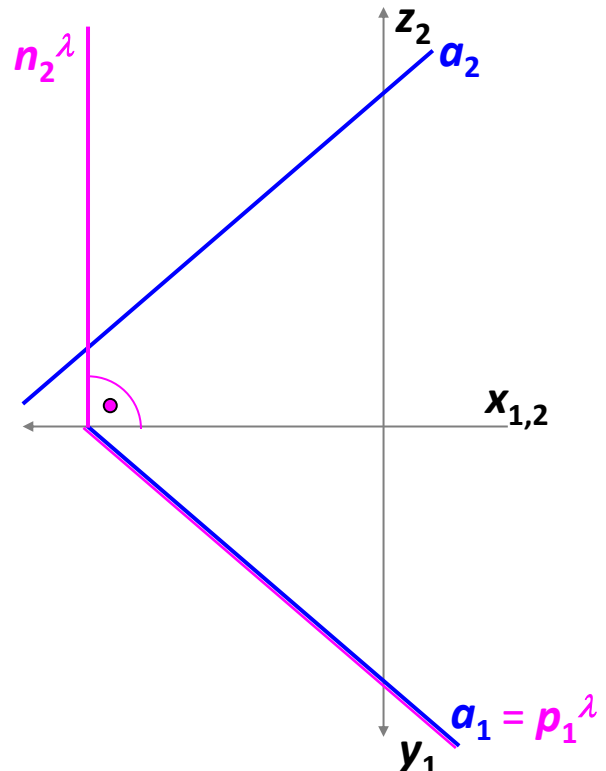
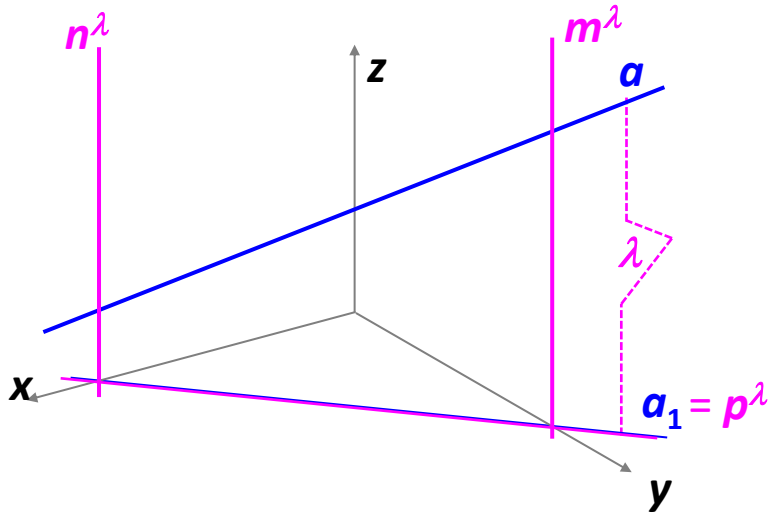
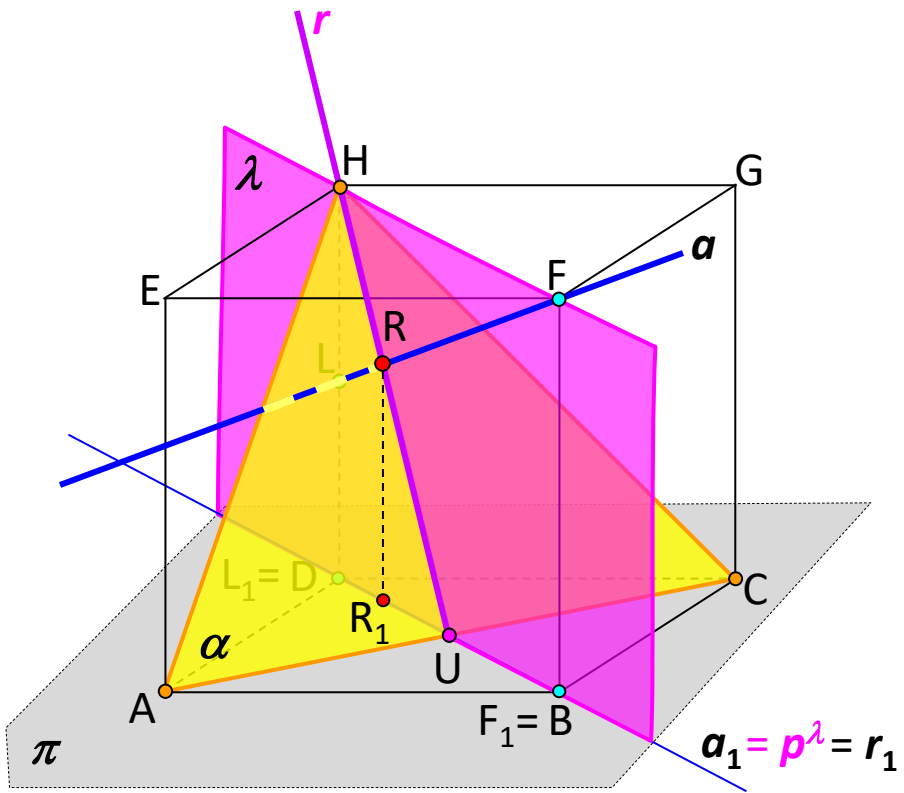
# 6. Priesečník priamky s rovinou. Metóda krycej priamky

Dané: priamka  $a = LF$  a rovina  $\alpha = ABH$ . Zostrojte priesečník priamky  $a$  s rovinou  $\alpha$ .

**Metóda krycej priamky**

1. Priamkou  $a$  preložíme pomocnú rovinu  $\lambda$ ,  
 $\lambda \perp \pi$ ,  $\lambda = (a, a_1)$ ,
2.  $\lambda \cap \alpha = r$ , platí:  $r_1 = a_1$ , *priamku  $r$  nazývame krycia priamka*,
3.  $a \cap r = R = a \cap \alpha$ .

Viditeľnosť:



**Príklad 2:** Zobrazte priesečník priamky  $a = MN$  s rovinou  $\alpha = (XYZ)$ .

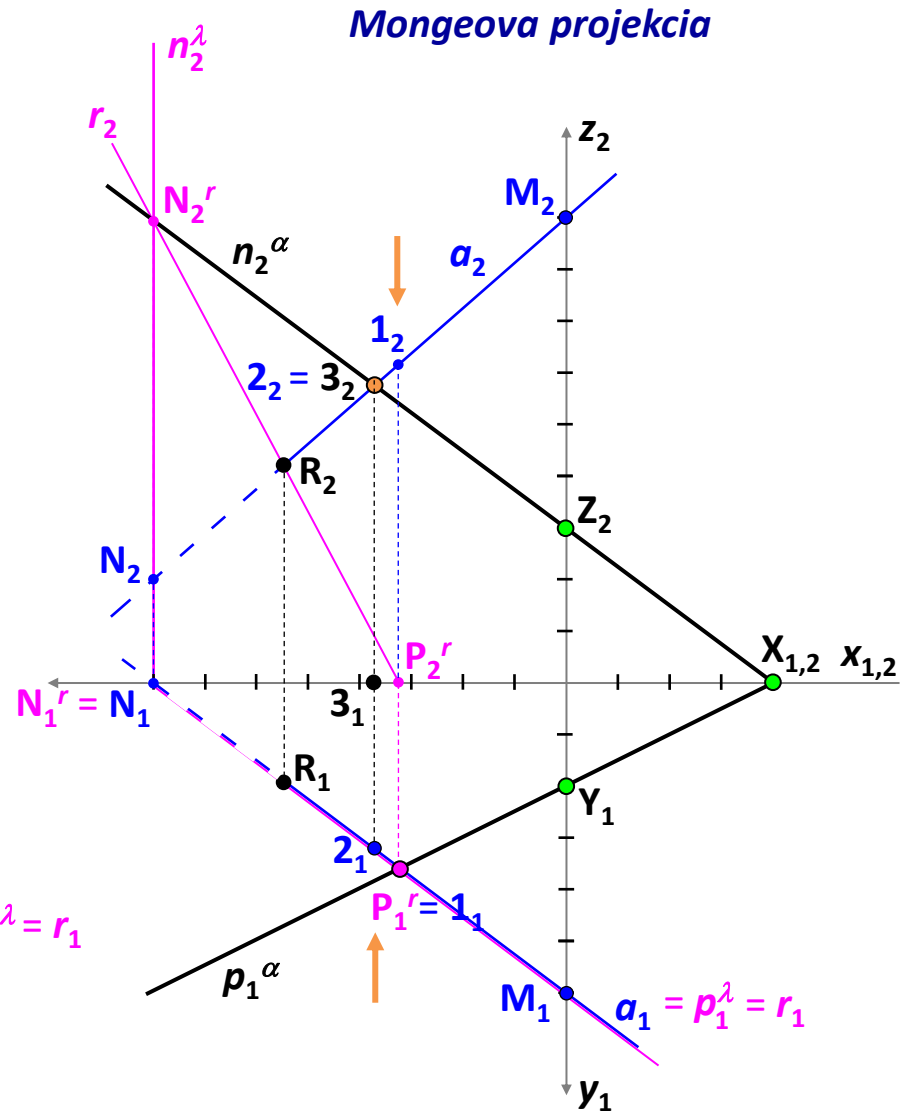
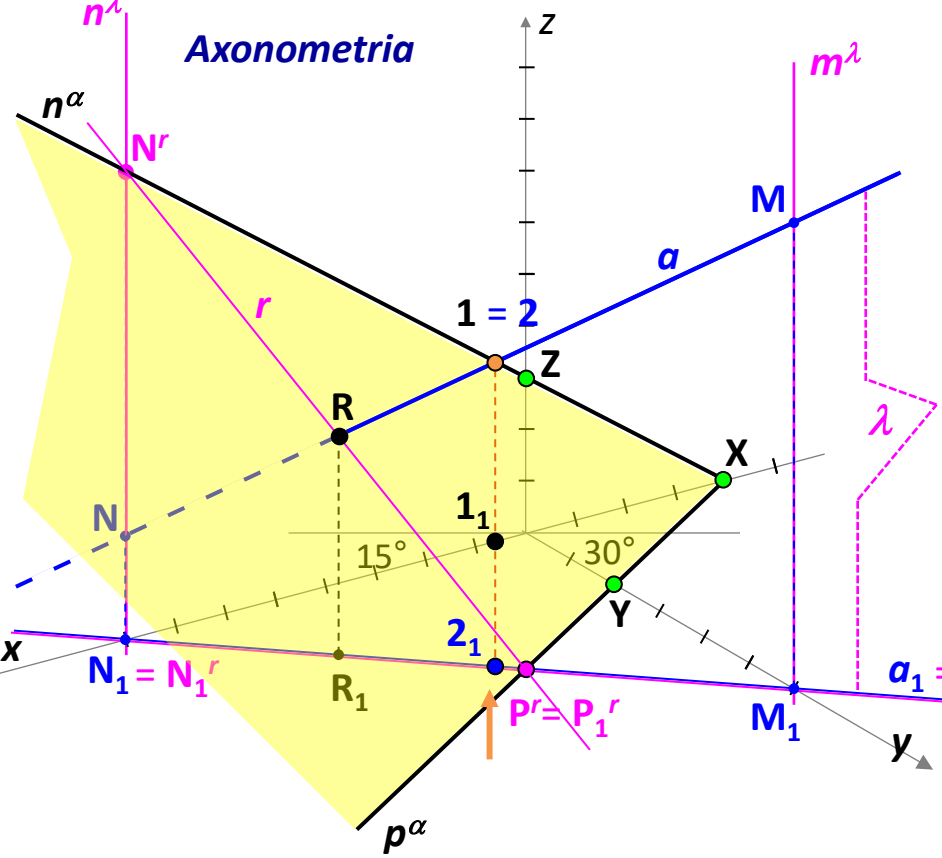
Úlohu riešte v šikmej axonometrii a v Mongeovej projekcii, pričom platí  $j^x = j^y = j^z = j^m = 1 \text{ cm}$ .

- X = [-4, 0, 0]
- Y = [0, 2, 0]
- Z = [0, 0, 3]
- N = [8, 0, 2]
- M = [0, 6, 9]

### Metóda krycej priamky

1. pomocná rovina  $\lambda = (a, a_1)$ ;  $\lambda \perp \pi$
2.  $\lambda \cap \alpha = r$ ,  
 $r \subset \lambda \Rightarrow r_1 = a_1$ ,  $r$  je krycia priamka  
 $r \subset \alpha \Rightarrow r = P^r N^r$ ,
3.  $r \cap a = r \cap \alpha = R$ .

Viditeľnosť: metóda krycích bodov



**Príklad 1:** Zobrazte priesečník priamky  $a = MN$  s trojuholníkom  $ABC$ .

Úlohu riešte v šikmej axonometrii a v Mongeovej projekcii, pričom platí  $j^x = j^y = j^z = j^m = 1 \text{ cm}$ .

$A = [5, 0, 6]$

$B = [6, 7, 0]$

$C = [0, 5, 4]$

$M = [0, 6, 8]$

$N = [7, 0, 2]$

**Metóda krycej priamky**

1. pomocná rovina  $\lambda = (a, a_1)$ ;  $\lambda \perp \pi$

2.  $\lambda \cap \alpha = r$ , kde  $\alpha = ABC$ ,

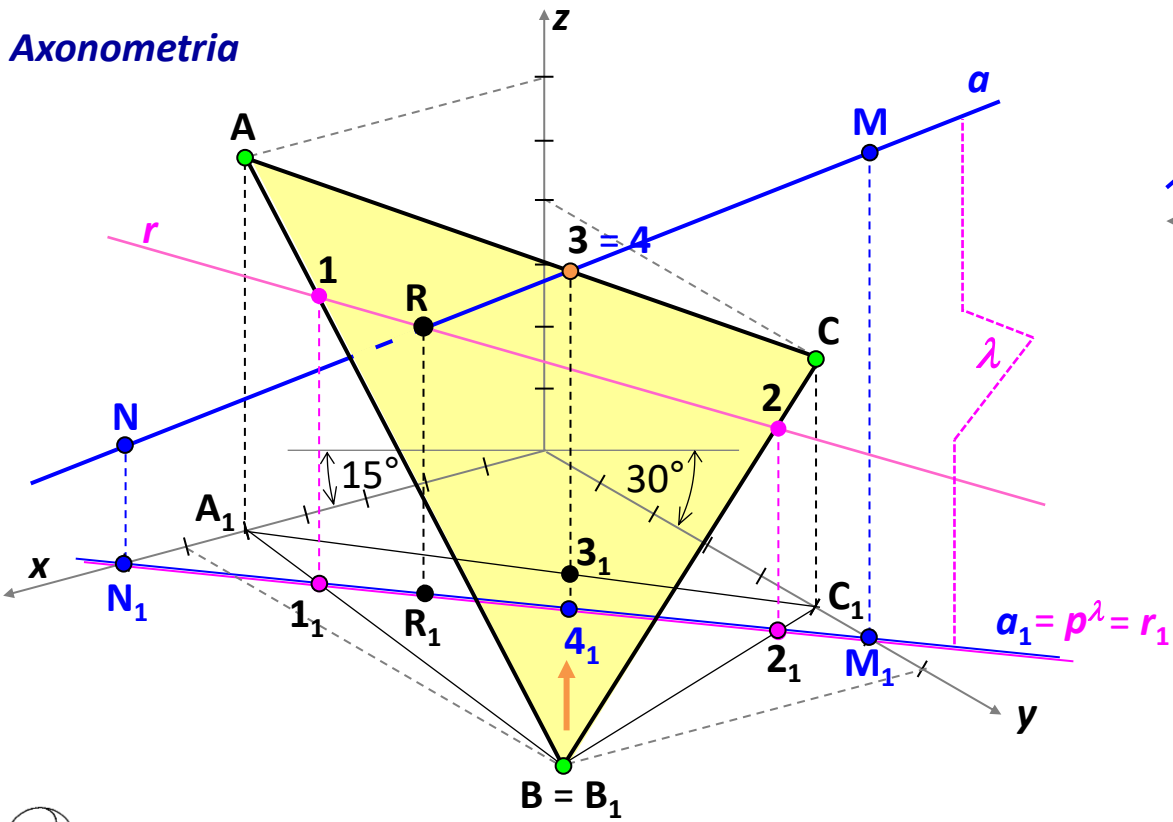
$r \subset \lambda \Rightarrow r_1 = a_1$ ,  $r$  je krycia priamka

$r \subset \alpha \Rightarrow r = 12$ ,

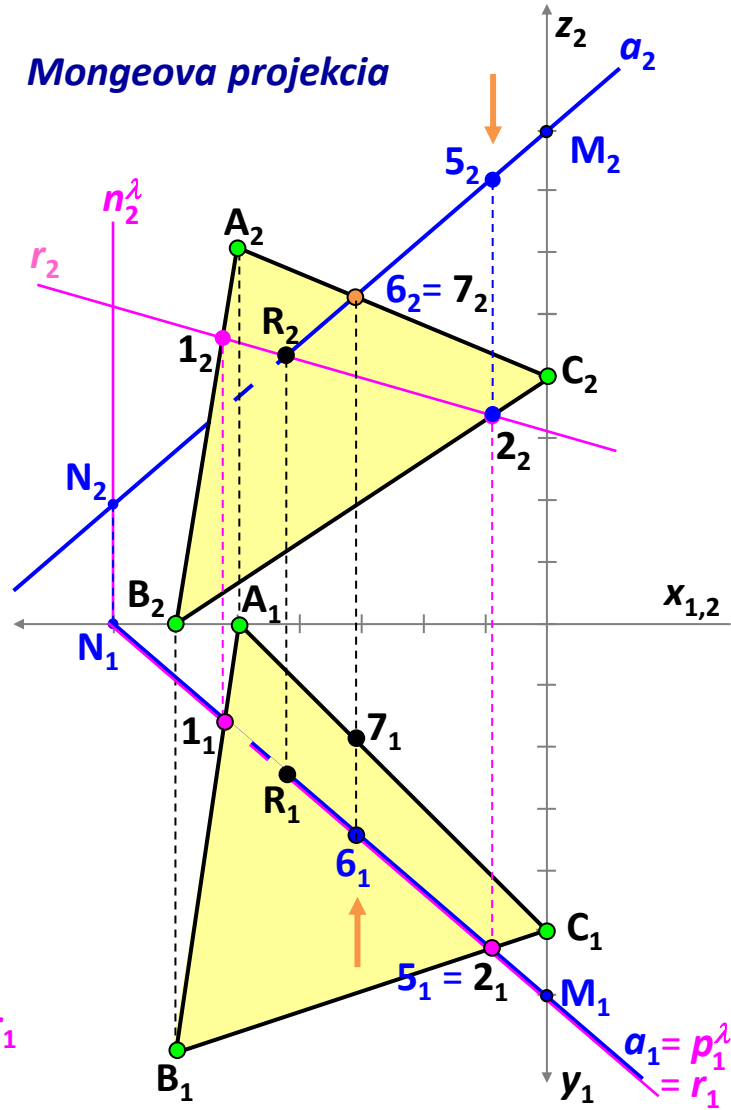
3.  $r \cap a = r \cap \alpha = R$ .

*Viditeľnosť: metóda krycích bodov*

**Axonometria**

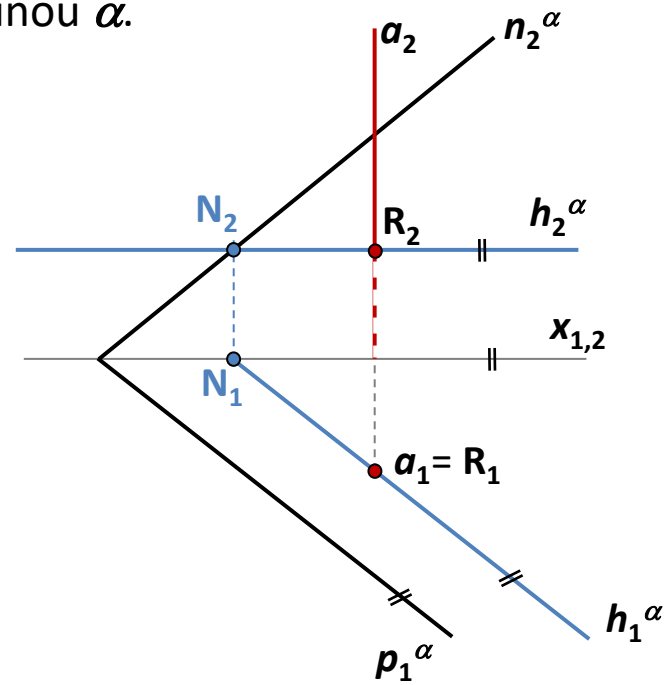
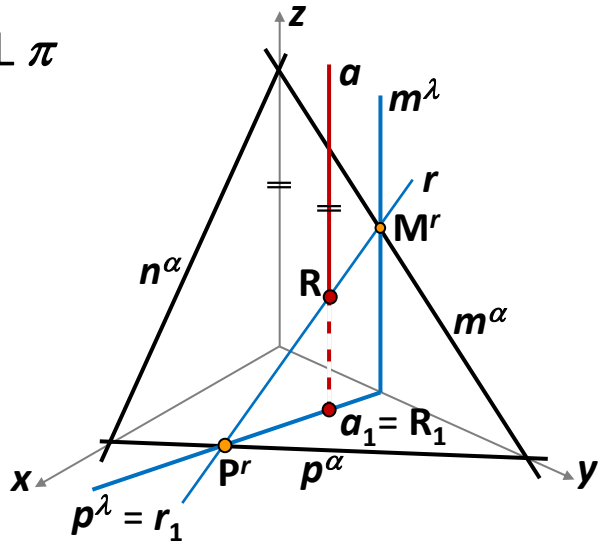


**Mongeova projekcia**



**Príklad 4:** Zostrojte priesečník priamky  $a$  s rovinou  $\alpha$ .

a)  $a \perp \pi$



b)  $\alpha \perp \pi$

