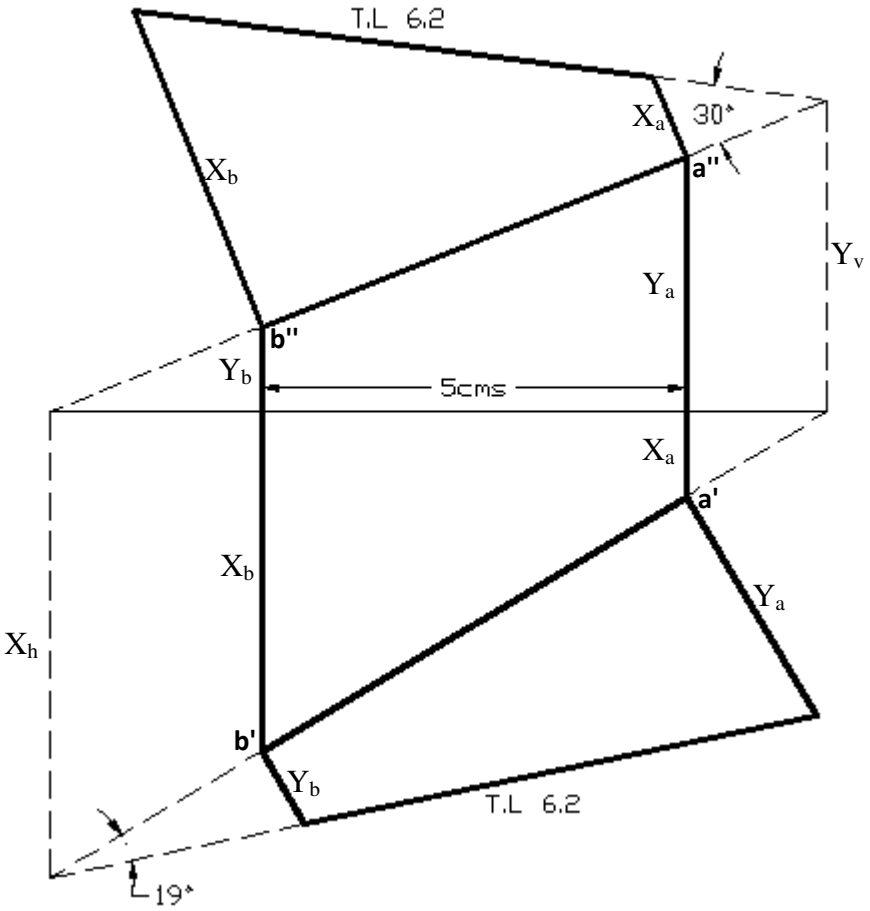
Lecture (5)

Example 1:

AB is a straight line in space having the following data:

X_a = 1 cm , Y_a = 3 cms , X_b = 4 cms , and Y_b = 1 cm

The distance of the projectors between A and B is 5 cms. Determine the true length of AB (TL), its inclinations, and its traces.



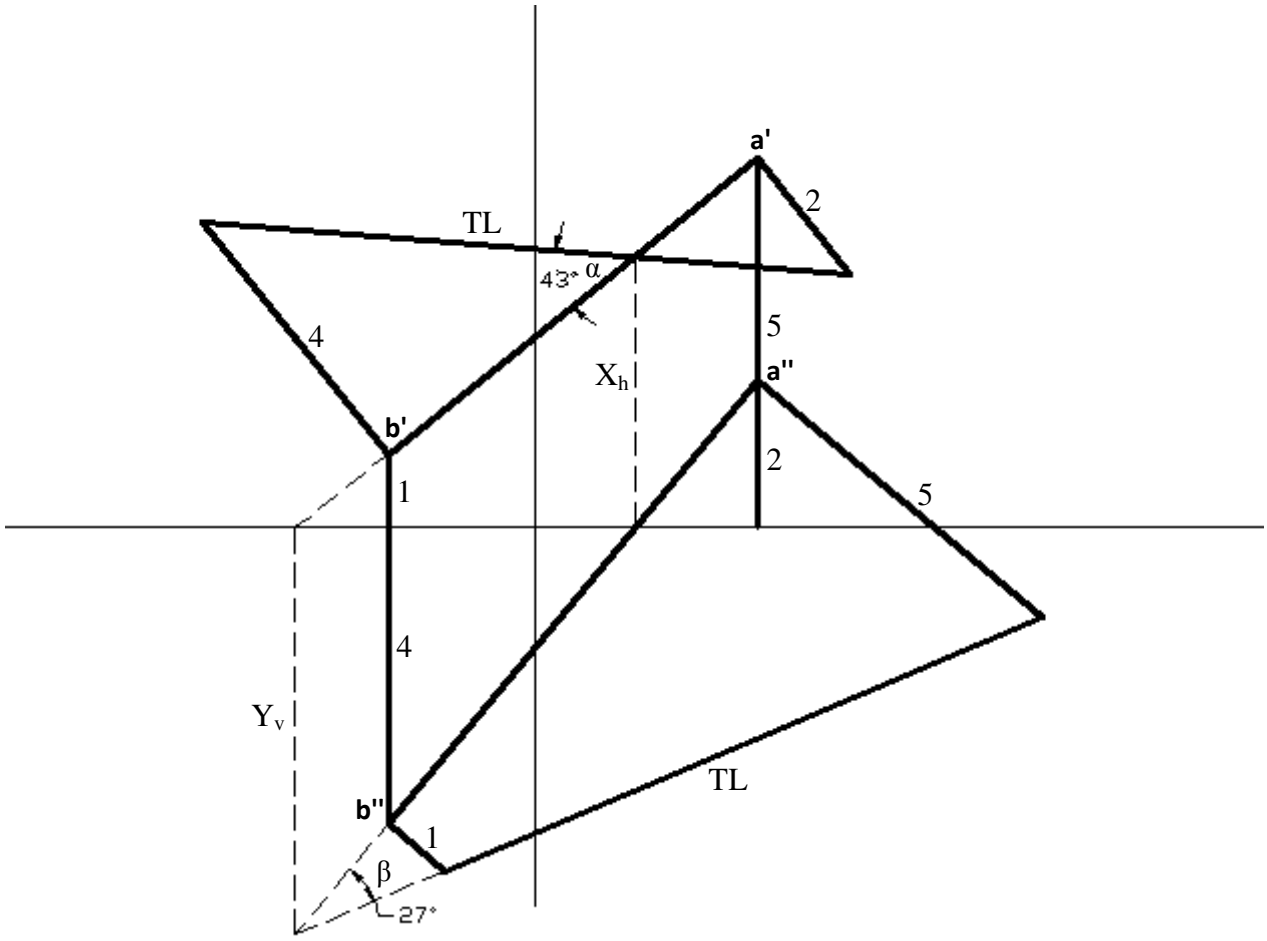
Results

TL = 6.2 cms
$\alpha = 19°$
$\beta = 30°$
X_h = 5.6 cms
Y_v = 3.7 cms

Example 2:

AB is a straight line in space having the following data: A(3 , -5 , 2) , B(-2 , -1 , -4).

Determine TL, α, β, X_h, Y_v



Results

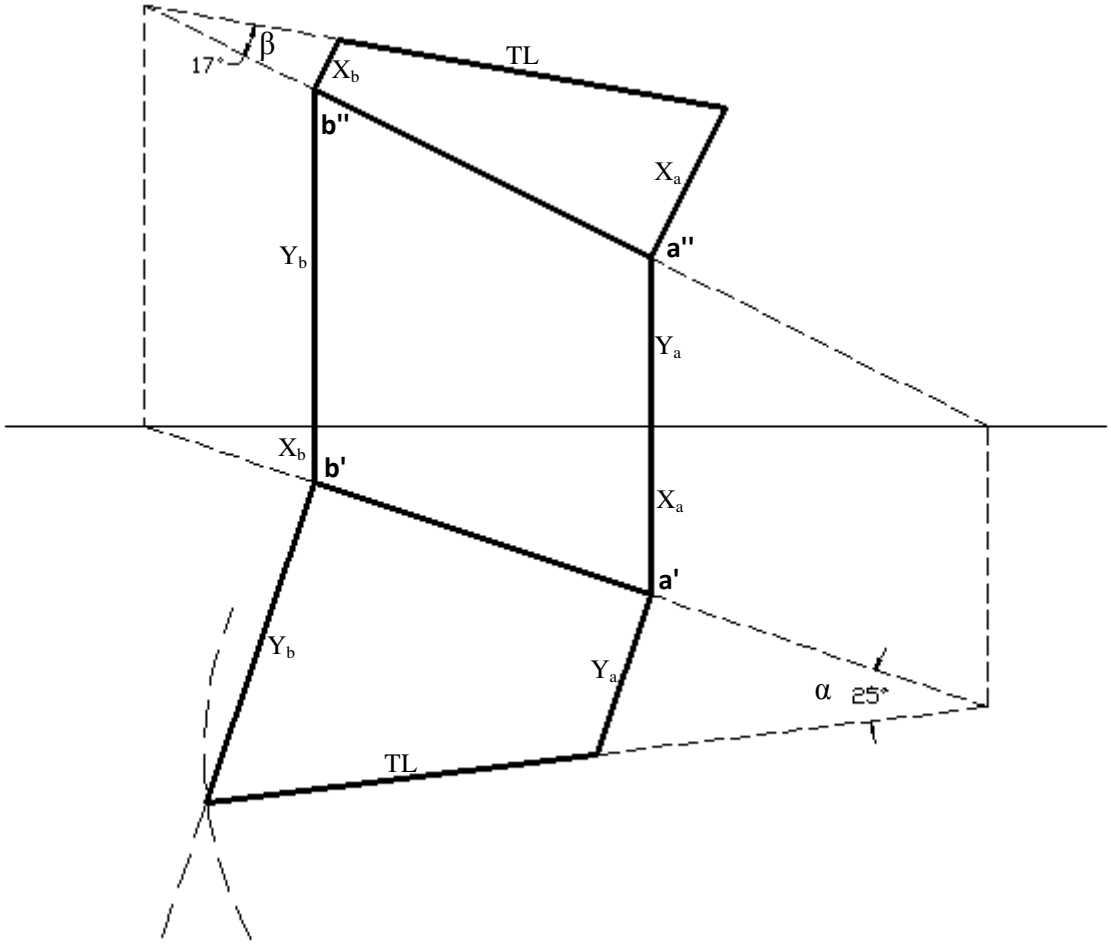
TL = 9 cms
α = 43°
β = 27°
X_h = -3.7 cms
Y_v = -5.6 cms

Example3:

AB is a straight line in space having the following data:

X_a = 3 cms , Y_a = 3 cms , X_b = 1 cm , Y_b = ? , and TL = 7 cms

The distance of the projectors between A and B is 6 cms. Determine Y_b , α , and β.



Results

Y_b = 6 cms

α = 25°

β = 17°