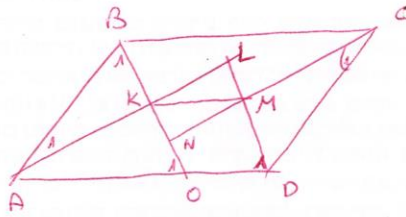


⊥



(1) $\angle A + \angle B = 180^\circ$ (supplementary angles)

$\frac{1}{2} \angle A + \frac{1}{2} \angle B = 90^\circ$

$\angle A_1 + \angle B_1 = 90^\circ$

$90^\circ = \angle AKB$

⊥ $\triangle ABO \iff \angle AKB = 90^\circ$

(2) $\angle O_1 = \angle B_1$

$\angle B = \angle D$

$KO \parallel DL \iff \angle O_1 = \angle D_1 \iff \angle B_1 = \angle D_1$

$90^\circ = \angle KLM$

$90^\circ = \angle CMD$

$\triangle KLM \cong \triangle CMD$

(3) $AB = CD \iff \triangle ABO \cong \triangle CDO$

$AB = CD$

$\triangle CMD \cong \triangle AKO \iff \angle AKB = \angle CMD = 90^\circ$

$KO = MO$

⊥ bisector

$KO \parallel MD \implies \triangle KMO \cong \triangle MDO$

(3) $AD = AO + OD$

$b = a + OD = KM$

$b - a = KM$