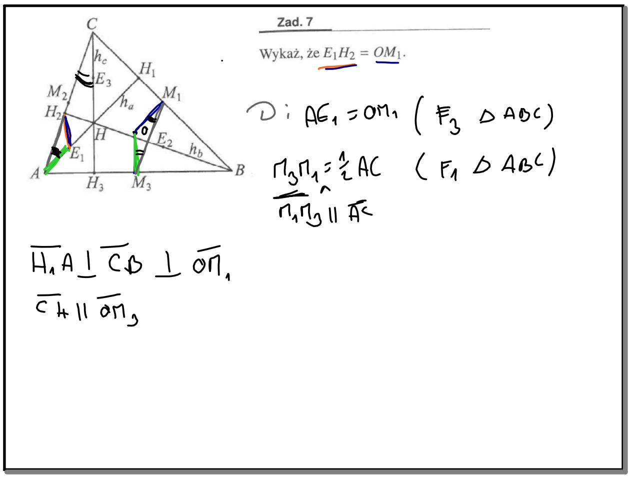
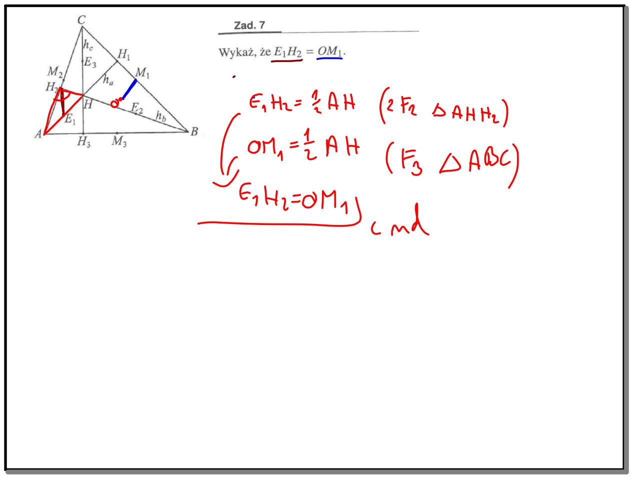
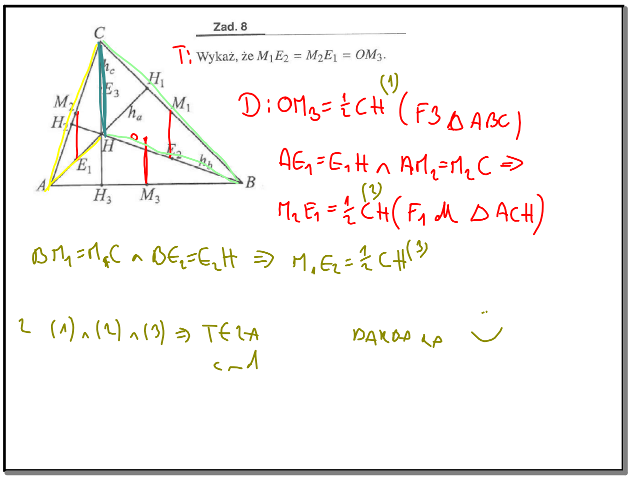
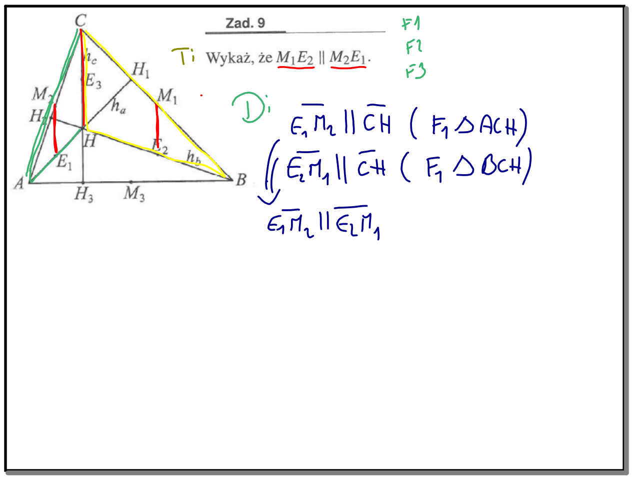
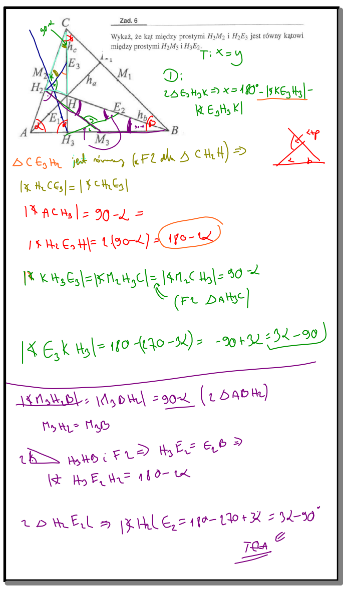
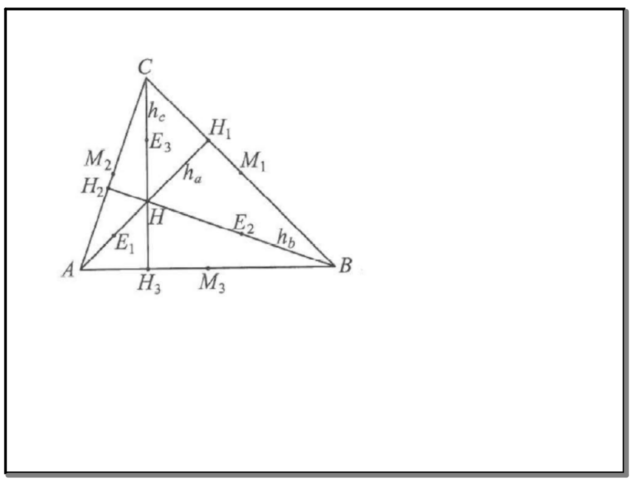

Zad. 7
Wykaż, że $E_1H_2 = OM_1$.
D: $AE_1 = OM_1$ (F3 △ ABC)
$M_3M_1 = \frac{1}{2}AC$ (F1 △ ABC)
$M_1M_3 \parallel AC$
$H_1A \perp CB \perp OM_1$
$CH \parallel OM_1$


Zad. 7
Wykaż, że $E_1H_2 = OM_1$.
$E_1H_2 = \frac{1}{2}AH$ (2 F2 △ AHH2)
$OM_1 = \frac{1}{2}AH$ (F3 △ ABC)
$E_1H_2 = OM_1$ c n d


Zad. 8
T: Wykaż, że $M_1E_2 = M_2E_1 = OM_3$.
D: $OM_3 = \frac{1}{2}CH$ (1) (F3 △ ABC)
$AE_1 = E_1H \wedge AM_2 = M_2C \Rightarrow$
$M_2E_1 = \frac{1}{2}CH$ (2) (F1 dla △ ACH)
$BM_1 = M_1C \wedge BE_2 = E_2H \Rightarrow M_1E_2 = \frac{1}{2}CH$ (3)
z (1) ∧ (2) ∧ (3) ⇒ TEZA c n d
DAKOO LP


Zad. 9
F1
F2
F3
T: Wykaż, że $M_1E_2 \parallel M_2E_1$.
D: $E_1M_2 \parallel CH$ (F1 △ ACH)
$E_2M_1 \parallel CH$ (F1 △ BCH)
$E_1M_2 \parallel E_2M_1$


Zad. 6
Wykaż, że kąt między prostymi H_3M_2 i H_2E_3 jest równy kątowi między prostymi H_2M_3 i H_3E_2.
T: x = y
D:
z △ E_3H_3K ⇒ x = 180° − |∢KE_3H_3| − |∢E_3H_3K|
△ CE_3H_2 jest równoramienny (z F2 dla △ CH_2H) ⇒
|∢H_2CE_3| = |∢CH_2E_3|
|∢ACH_3| = 90 − α =
|∢H_2E_3H| = 2(90 − α) = 180 − 2α
|∢KH_3E_3| = |∢M_2H_3C| = |∢M_2CH_3| = 90 − α
(F2 △ AH_3C)
|∢E_3KH_3| = 180 − (270 − 3α) = −90 + 3α = 3α − 90
|∢M_3H_2B| = |∢M_3BH_2| = 90 − α (z △ ABH_2)
$M_3H_2 = M_3B$
z △ H_3HB i F2 ⇒ $H_3E_2 = E_2B$ ⇒
|∢ $H_3E_2H_2$| = 180 − 2α
z △ H_2E_2L ⇒ |∢H_2LE_2| = 180 − 270 + 3α = 3α − 90°
TEZA


C
h_c
H_1
M_2
E_3
M_1
H_2
h_a
H
E_2
E_1
h_b
A
B
H_3
M_3