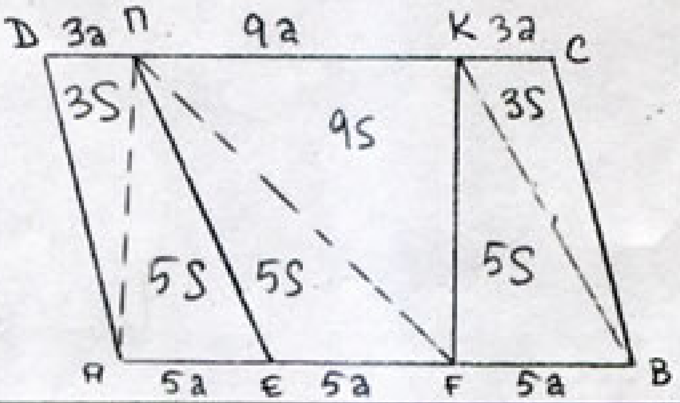
11	Ad Soyad		ARNAVUTKÖY KORKMAZ YİĞİT ANADOLU LİSESİ 2008-2009 EĞİTİM VE ÖĞRETİM YILI 11. Sınıf I. DÖNEM II. *Geometri* YAZILISI
	No		

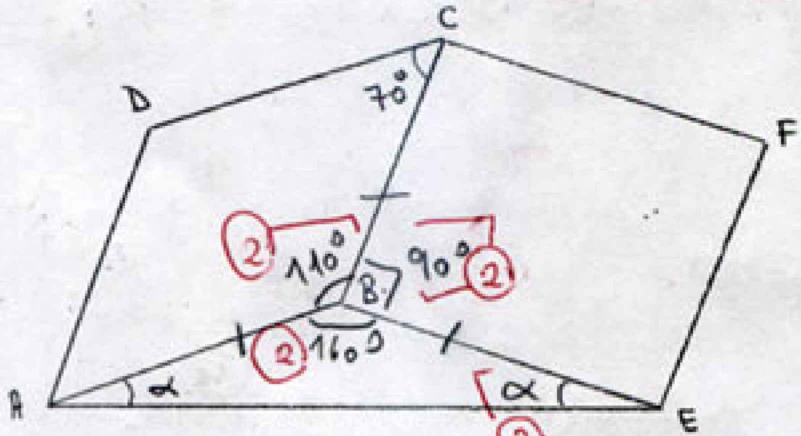
1 10 puan



ABCD paralelkenar
|AE| = |EF| = |FB|
3 |Dn| = 3 |KC| = |nK|
A(ABCD) = 90 br²
↓
A(EFnK) = ?

A(ABCD) = 30S = 90 (3) (2)
S = 3
A(EFnK) = 14S = 42 (3) (2)

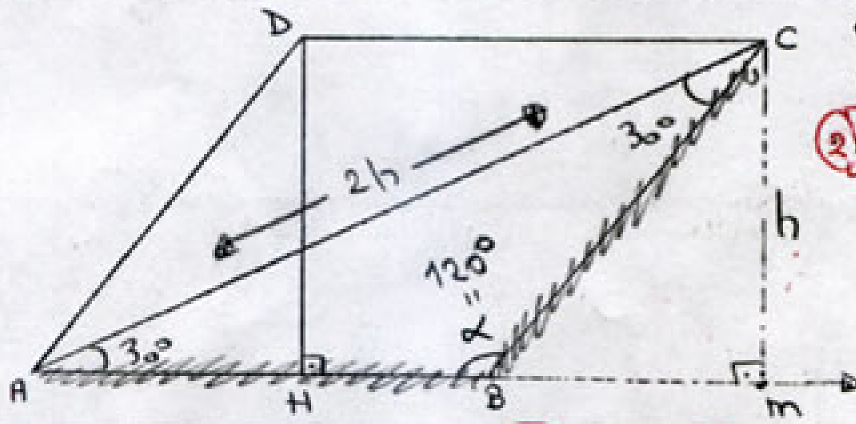
2 10 puan



ABCD eşkenar dörtgen ∧ CBEF kare → α = ?

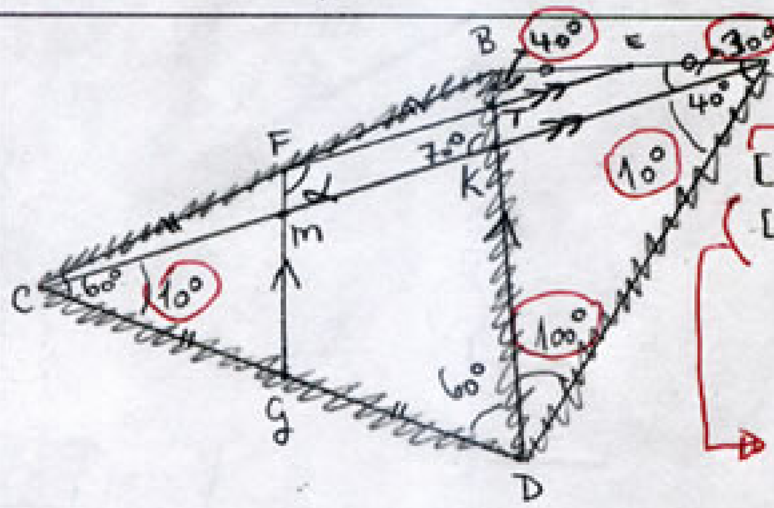
2α + 160° = 180°
2α = 20°
α = 10° (2)

3 10 puan



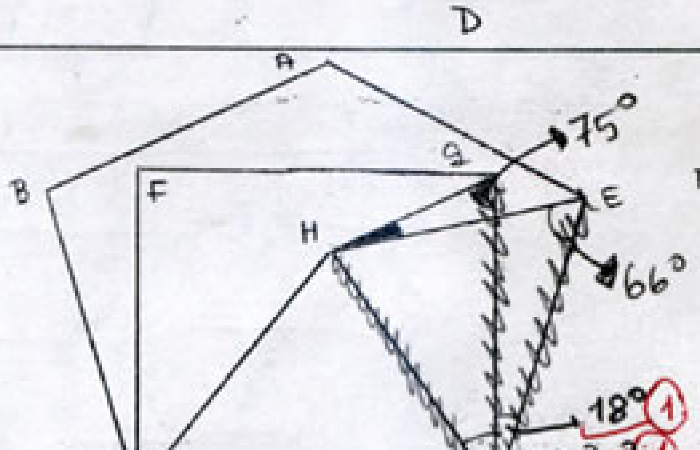
ABCD eşkenar dörtgen
|AC| = 2 |DH| → α = ?
(2) [AB ∩ [CM] = {m} (1) (|DH| = |mC|)
|AC| = 2h ∧ |mC| = h ∧ CÂM dik → m(CÂM)
= 30° (3)
= m(AĈB) (2)
α = 120° (2)

4 10 puan



|AD| = |DC| = |CB|
m(EF̂G) = α = ? (1)
(2) [BD] çizilir → CBD eşkenar
[EF] çizilir.
[EF] orta taban → [EF] // [AC] (1)
ADB ikizkenar → m(AB̂D) = 40° (1) ∧ m(AD̂B) = 100° (1)
ADC ikizkenar → m(DÂC) = 10° (1) ∧ m(DĈA) = 10° (1)
FMKE paralelkenar olur.
m(CÔB) = 70° = α (2)

5 10 puan

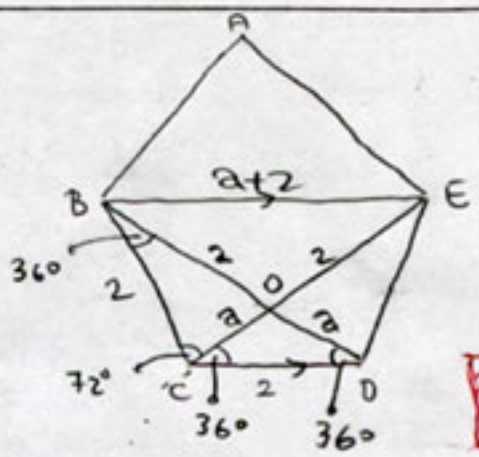


DCH düzgün üçgen → 60°
DCFG düzgün dörtgen → 90°
DCBAE düzgün beşgen → 108°
m(GĤE) = ? (1) |DH| = |DE| ∧ m(HD̂E) = 48° (1)
↓
m(DĤE) = m(DÊH) = 66° (1)
|DH| = |DG| (1)
↓
m(DĤG) = m(DĜH) = 75° (2) → m(GĤE) = 75° − 66° = 9° (2)

6 — 10 puan ✓

Bir kenarı 2br olan düzgün beşgenin köşegen uzunluğunu bulun.

Şekil üzerinden



• $m(B\hat{C}O) = m(A\hat{O}C) = 72° \rightarrow |BC| = |BO|$ (1)

(1) • $|CO| = a = |OD|$ olsun. $\rightarrow |CE| = |BE| = a+2$ (1)

(1) • $[BE] \parallel [CD] \rightarrow \triangle BOE \sim \triangle DOC$ (A.A) (1)

$\frac{2}{a+2} = \frac{a}{2} \rightarrow a^2+2a-4=0$ (2)

• $\Delta = 4+16 = 20$

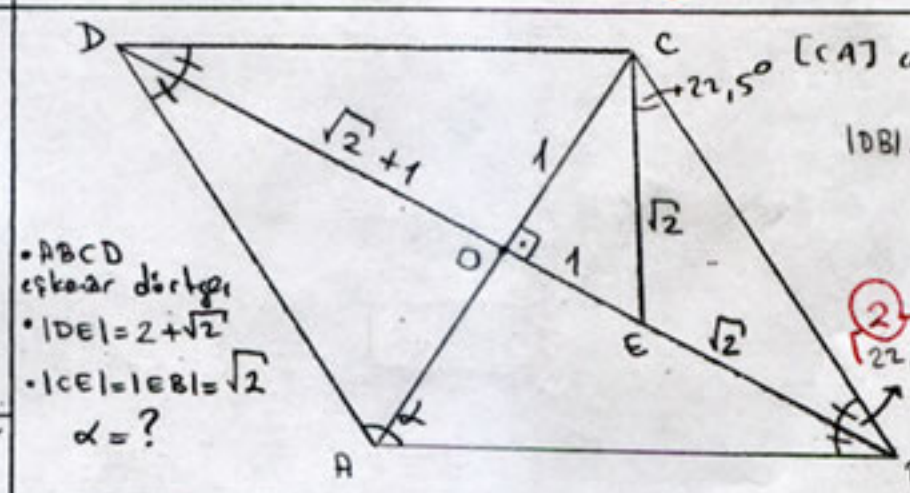
(1) $x_{1,2} = \frac{-2 \mp \sqrt{20}}{2}$

$-1+\sqrt{5}$, ~~$-1-\sqrt{5}$~~

$-1+\sqrt{5}+2$

$\sqrt{5}+1$ (2)

7 — 10 puan ✓



• ABCD eşkenar dörtgen

• $|DE| = 2+\sqrt{2}$

• $|CE| = |EB| = \sqrt{2}$

$\alpha = ?$

[CA] çizilir $\rightarrow$ [CA], [DB]'nı ortalar ∧ $[CA] \perp [DB]$ (1)

$|DB| = 2+\sqrt{2}+\sqrt{2} = 2+2\sqrt{2} \rightarrow |DO| = |OB| = 1+\sqrt{2}$ (1)

$|OE| = 1$ (1)

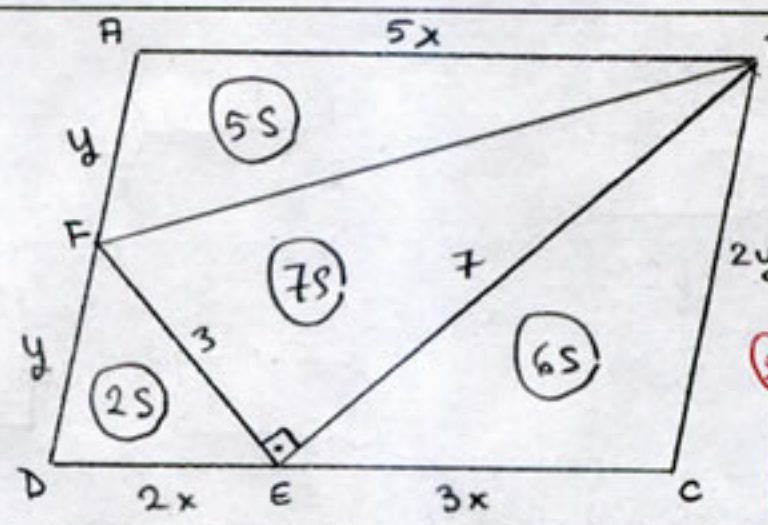
(1) • $|CO| = 1$ ($\triangle COE$'de pisagor)

(2) $22,5°$

$m(C\hat{B}O) = 22,5° \rightarrow m(C\hat{B}A) = 45°$ (1) $\rightarrow m(D\hat{A}B) = 135°$ (2)

Amortdy (1)

8 — 10 puan ✓



ABCD paralelkenar

$|AF| = |FD|$

$2|CE| = 3|DE|$

$|BE| = 7 \wedge |EF| = 3$

$\rightarrow A(ABCD) = ?$

$x.y = S$ olsun.

(2) $A(\triangle FDE) = 2S$ (1)

$A(\triangle ECB) = 6S$ (1)

$A(\triangle AFB) = 5S$ (1)

ve

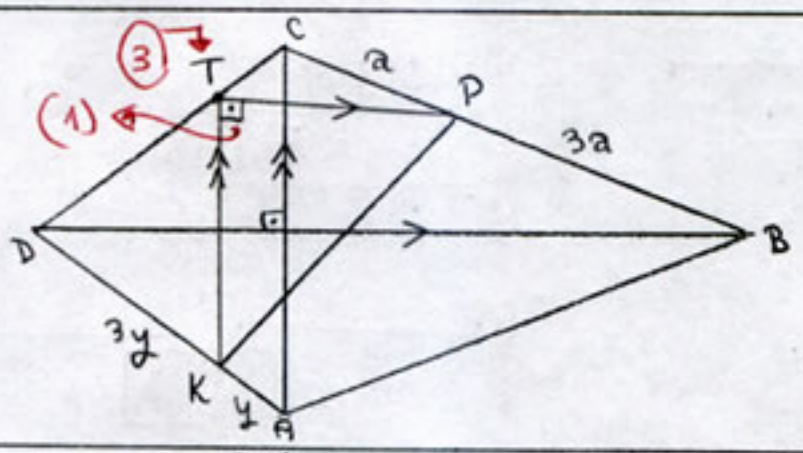
$A(ABCD) = 20S$ (1)

$\rightarrow A(\triangle FEB) = 20S - 13S = 7S$ (2)

~~$7S = \frac{3.7}{2}$~~ $\rightarrow$ $S = \frac{3}{2}$ (1)

$A(ABCD) = 20.\frac{3}{2} = 30$ (1)

9 — 10 puan ✓



$|AC| = 8 \wedge |BD| = 12$

$|BP| = 3|PC|$

$|KD| = 3|AK|$

$\rightarrow |KP| = ?$

$\triangle DKT \sim \triangle DAC$ (A.A) (2)

$\frac{|KT|}{8} = \frac{3}{4} \rightarrow |KT| = 6$ (1)

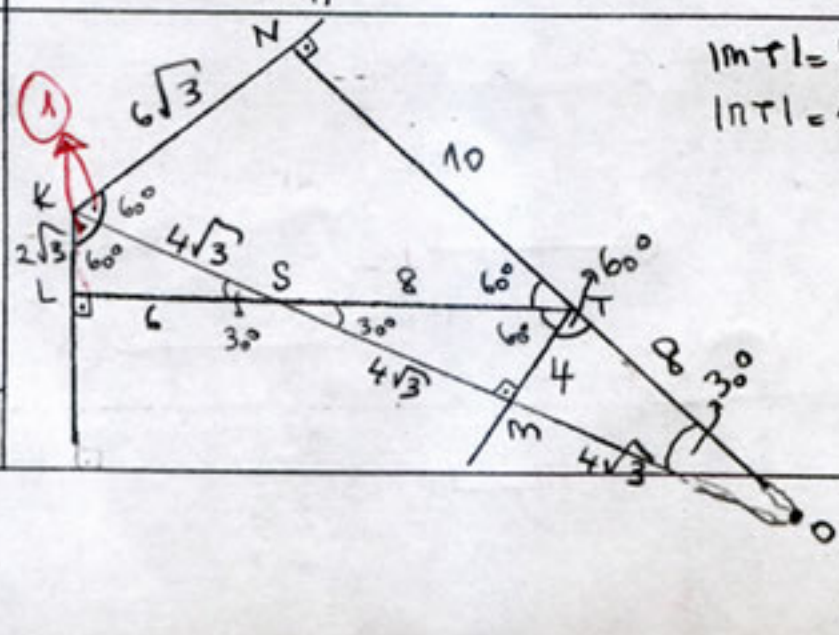
$\triangle CTP \sim \triangle CDP$ (A.A) (2)

$\frac{|PT|}{12} = \frac{1}{4} \rightarrow |PT| = 3$ (1)

$\triangle KTP$'de pisagor

$|KP| = 3\sqrt{5}$ (1)

10 — 10 puan ✓



$|mT| = 4 \wedge m(n\hat{T}L) = 60°$

$|nT| = 10 \rightarrow |LS| = ?$

• $[nT] \cap [KM] = \{O\}$ (2)

(1) $|TO| = 8 \wedge |MO| = |SM| = 4\sqrt{3}$ (1)

(1) $|KN| = 6\sqrt{3} \wedge |KO| = 12\sqrt{3}$ (1)

(1) $|KS| = 4\sqrt{3} \rightarrow |KL| = 2\sqrt{3}$ (1)

$|LS| = 6$ (1)