Sınıf	
Ad Soyad	
No	

ARNAVUTKÖY KORKMAZ YİĞİT ANADOLU LİSESİ
2010-2011 EĞİTİM VE ÖĞRETİM YILI
11 Sınıf I. Dönem II. *Geometri* Yazılısı

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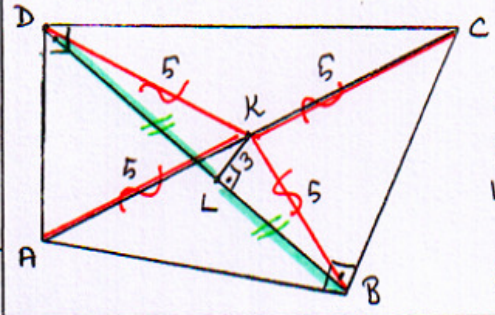
1 — 10 puan



$|AD|=6$, $|DC|=8$, $|AK|=|KC|$, $|DL|=|LB|$, $|KL|=3$ → $|DB|=?$

$|AC|=10$ ($\hat{ADC}$'de Pisagor Teo.) (2)

$|AK|=|KC|=5 \rightarrow |DK|=5$ (1) $\rightarrow |KB|=5$ (1)

$\hat{DKB}$'de; $|DK|=|KB| \wedge |DL|=|LB| \rightarrow [KL]$, $[DB]$'ye ait yüksekliktir. (2)

$\rightarrow m(\hat{KLB})=90°$

$|LB|=4$ ($\hat{KLB}$'de Pisagor Teo.) (2) $|DB|=4+4=8$ (2)

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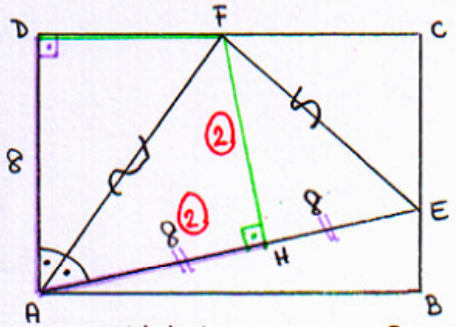
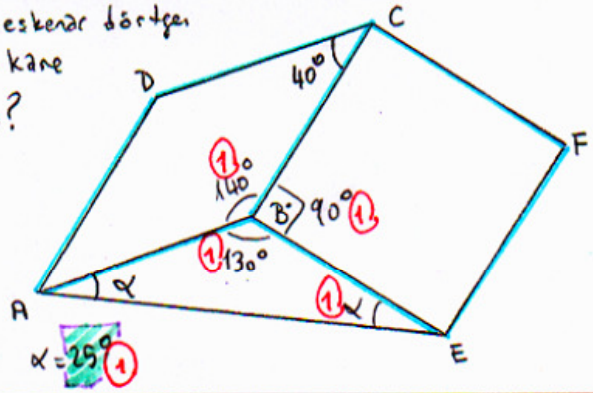
2 — 5 + 5 puan



ABCD dikdörtgen → $|AE|=?$ $8+8=16$ (1)



- ABCD eşkenar dörtgen
- BCFE kare
→ $\alpha=?$

$\alpha=25°$ (1)

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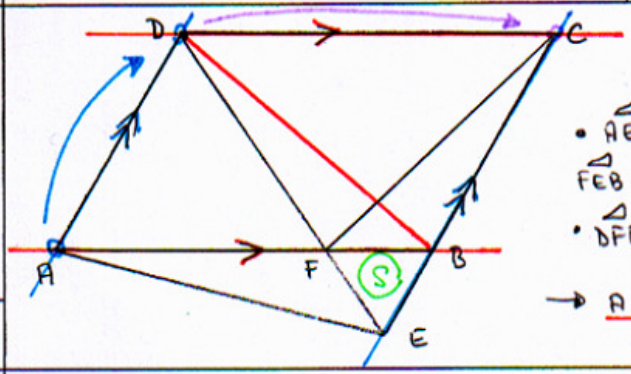
3 — 10 puan



ABCD paralelkenar, CDE üçgen

$A(\hat{AFE})=24 \rightarrow A(\hat{CFB})=?$

- $\hat{AEB}$'nin A noktası D'ye taşınır. $A(\hat{AEB})=A(\hat{DEB})$ (3)

$\hat{FEB}$ ortak olduğundan $A(\hat{AEF})=A(\hat{DFB})=24$ (2)

- $\hat{DFB}$'nin D noktası C'ye taşınır. $A(\hat{DFB})=A(\hat{CFB})$ (3)

$\rightarrow A(\hat{AEF})=A(\hat{DFB})=A(\hat{CFB})=24$ (2)

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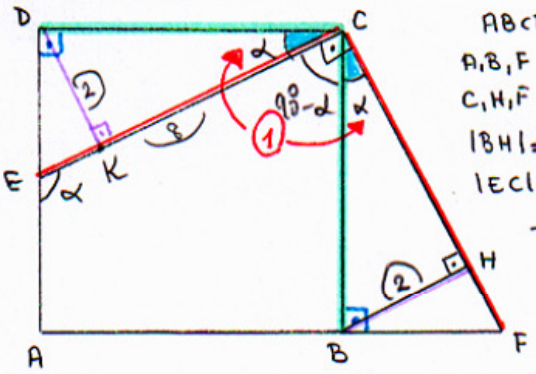
4 — 10 puan



ABCD kare, A,B,F doğrusal, C,H,F doğrusal, $|BH|=2$, $|EC|=8$ → $\alpha=?$

$m(\hat{BCF})=\alpha \rightarrow m(\hat{ECB})=90°-\alpha \wedge m(\hat{DCE})=\alpha$ (1)

$\hat{CBF} \cong \hat{CDE}$ (A.K.A.) (2)

$\rightarrow |CE|=|CF|=8$ (2)

$\hat{DEC}$'de; $|DK|=2 \wedge |EC|=8 \rightarrow$ $\hat{DEC}$ $15°-75°-90°$ üçgenidir. (2)

$m(\hat{DEC})=75°$ (1) $\rightarrow \alpha=105°$ (1)

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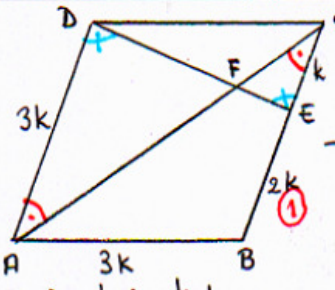
5 — 5 + 5 puan

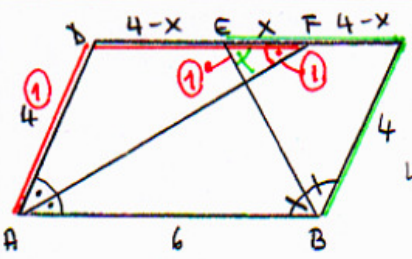


$\hat{DAF} \sim \hat{ECF}$ (A.A.) (1)

3 1 1

$\rightarrow \frac{|AF|}{|FC|}=3$ (1)

- ABCD eşkenar dörtgen
- $|BF|=3|EC|$ → $\frac{|AF|}{|FC|}=?$



ABCD paralelkenar

$|EF|=x=?$

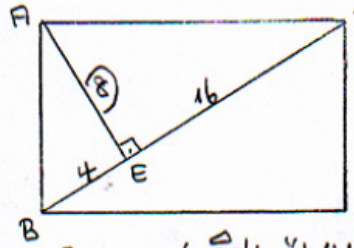
$|DE|+|EF|+|FC|=6$ (1)

$4-x+x+4-x=6$

$8-x=6$

$x=2$ (1)

6 — 5 + 5 puan

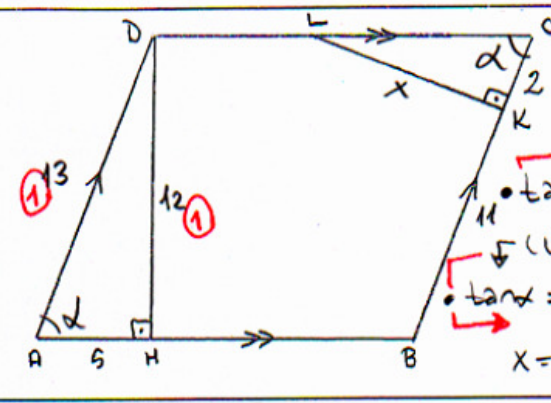


ABCD dikdörtgen
$|BE|=4$, $|ED|=16$
Çevre $(ABCD)=?$

$|AE|^2=4.16$ ($\widehat{ABD}$'de öklid bağ.) $\Rightarrow |AE|=8$ (2)

(1) $|AB|=4\sqrt{5}$ (1) $|AD|=8\sqrt{5}$ (Pisagor bağ.)

Çevre $=2.4\sqrt{5}+2.8\sqrt{5}$
$=24\sqrt{5}$ (1)



$|AH|=5 \rightarrow |LK|=?$

(1) $\tan\alpha=\frac{12}{5}$ (1)

($\widehat{LKC}$'de) (1)

$\tan\alpha=\frac{x}{2}=\frac{12}{5}$

$x=\frac{24}{5}$ (1)

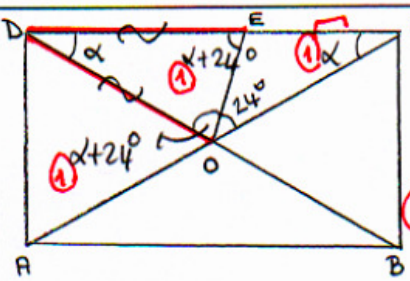
7 — 5 + 5 puan

Bir kenarının uzunluğu 2 olan düzgün altıgenin alanını bulun.

$A(\text{Altıgen})=6.A(\text{Eşkenar üçgen})$ (2)

$\frac{a^2\sqrt{3}}{4}=\frac{2^2\sqrt{3}}{4}=\sqrt{3}$ (2)

$6\sqrt{3}$ (1)



- ABCD dikdörtgen
- O, köşegenlerin kesim noktası

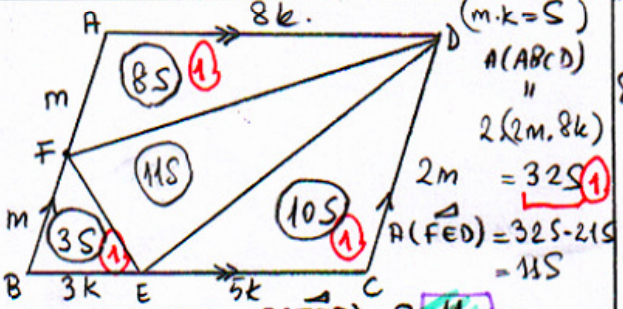
$|DE|=|DO| \rightarrow \alpha=?$ (1)

$\alpha+\alpha+24^\circ+\alpha+24^\circ=180^\circ$

$3\alpha=132^\circ$

$\alpha=44^\circ$ (1)

8 — 10 puan

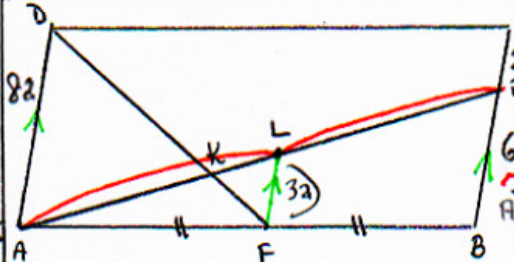


$(m.k=S)$

$A(ABCD)=2(2m.8k)=32S$ (1)

$A(\widehat{FED})=32S-21S=11S$

$3|EC|=5|BE|$, $|AF|=|FB| \rightarrow \frac{A(FED)}{A(ABCD)}=?$ $\frac{11}{32}$ (1)



$\widehat{ABE}$'de;

$[FL]$ orta taban çizilir. (1)

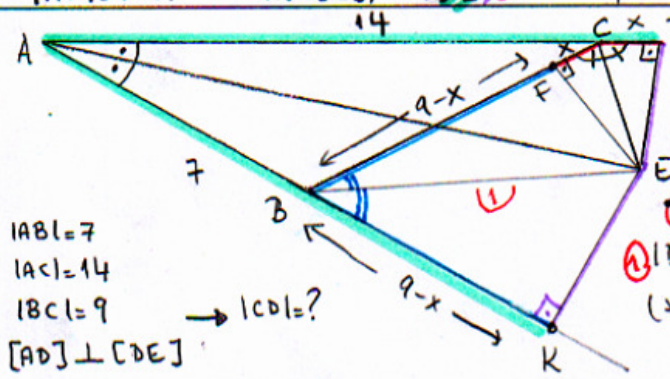
$|FL|=32$ (1)

$\widehat{ADK} \sim \widehat{LFK}$ (A.A.) (1)

ABCD paralelkenar, $|BE|=3|EC| \rightarrow \frac{|DK|}{|KF|}=?$

$\frac{|DK|}{|KF|}=\frac{8}{3}$ (1)

9 — 10 puan



$|AB|=7$
$|AC|=14$
$|BC|=9 \rightarrow |CD|=?$
$[AD] \perp [DE]$

$\widehat{ABC}$'de; $[CE]$ dış, $[AE]$ iç açıortay

→ E dış teğet çemberin merkezi (1)

(1) $[AB]$'ya, E'den dikme çizilir. $|AD|=|AK|$ (*) (1)

(1) $[BE]$ dış açıortaydır. $[EF]$ dikmesi çizilirse; (1)

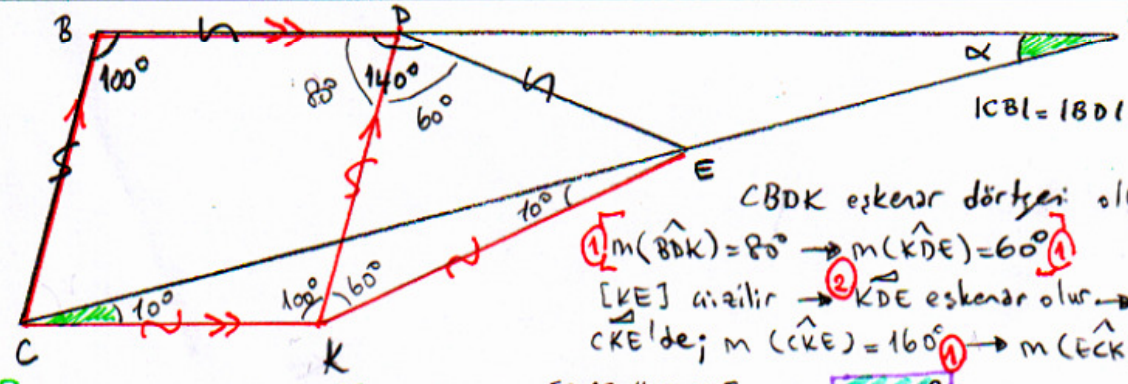
(1) $|DC|=|CF|$ ∧ (1) $|FB|=|BK|$ (**)

(*) ∧ (**) ⊢ $7+9-x=14+x$ (1)

$2x=2$

$x=1$ (1)

10 — 10 puan



$|CB|=|BD|=|DE| \rightarrow \alpha=?$

CBDK eşkenar dörtgeni oluşturulur. (2)

(1) $m(\hat{BDK})=80^\circ \rightarrow m(\hat{KDE})=60^\circ$ (1)

$[KE]$ çizilir → (2) $\widehat{KDE}$ eşkenar olur → $\widehat{CKE}$ ikiz kenar (2)

$\widehat{CKE}$'de; $m(\hat{CKE})=160^\circ$ (1) → $m(\hat{ECK})=10^\circ$

$[BA] \parallel [CK] \rightarrow$ $\alpha=10^\circ$ (1)

[Yorum: (5) Yorumlu Bağlı Soruş: (5)]

Ümit CANLI
Başarılar...