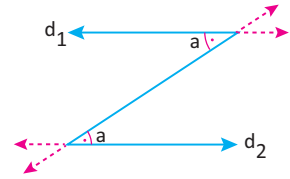
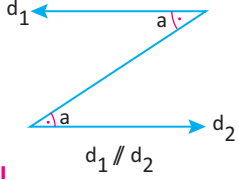


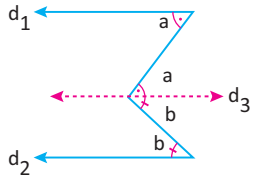
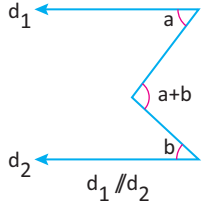
DOĞRUDA AÇILAR 2

Z Kural



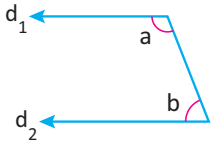
a açıları iç ters açılar olduğundan ölçüleri eşittir.

M Kuralı

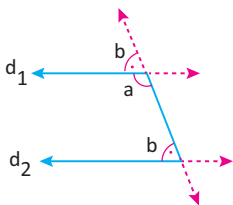


$d_1 // d_2 // d_3$ olduğundan a açıları ve b açıları iç ters açılardır.

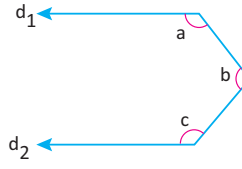
U Kuralı



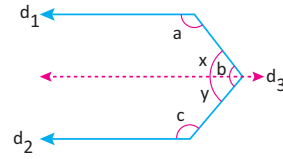
$d_1 // d_2$ ise $a + b = 180^\circ$ dir.



Kalem Ucu Kuralı



$d_1 // d_2$ ise $a + b + c = 360^\circ$



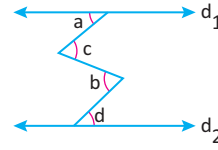
$d_1 // d_2 // d_3$ ise

$a + x = 180^\circ$, $y + c = 180^\circ$

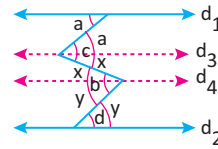
$a + x + y + c = 360^\circ$

$a + b + c = 360^\circ$ olur.

Zikzak Kuralı



$d_1 // d_2$ ise $a + b = c + d$



$d_1 // d_2 // d_3 // d_4$ ise

$c = a + x$

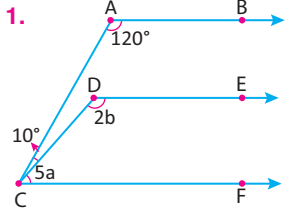
$d = y$ olur.

bulunur.

Bu durumda,

$c + d = a + x + y$

$c + d = a + b$



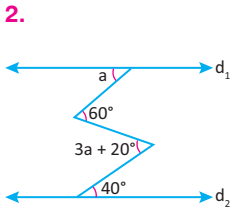
Yukarıdaki şekilde

$[AB \parallel DE \parallel CF,$

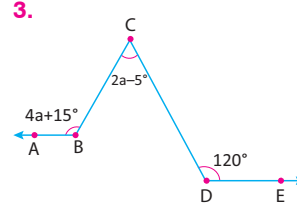
$m(\widehat{BAC}) = 120^\circ,$

$m(\widehat{ACD}) = 10^\circ, m(\widehat{DCF}) = 5a$ ve $m(\widehat{CDE}) = 2b$

olduğuna göre, $b - a$ kaç derecedir?



Şekilde $d_1 \parallel d_2$ olduğuna göre, a kaç derecedir?



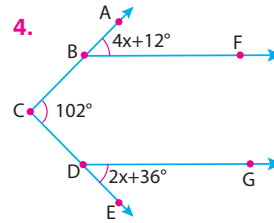
Yukarıdaki şekilde

$[BA \parallel DE, m(\widehat{CDE}) = 120^\circ,$

$m(\widehat{ABC}) = 4a + 15^\circ$ ve

$m(\widehat{BCD}) = 2a - 5^\circ$

olduğuna göre, a kaç derecedir?



Yukarıdaki şekilde

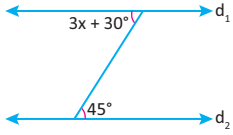
$[BF \parallel DG, m(\widehat{ABF}) = 4x + 12^\circ,$

$m(\widehat{GDE}) = 2x + 36^\circ$ ve

$m(\widehat{ACE}) = 102^\circ$

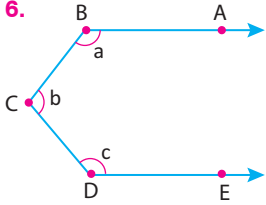
olduğuna göre, x kaç derecedir?

5.



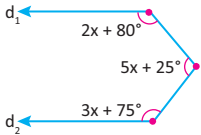
Şekilde $d_1 \parallel d_2$ olduğuna göre, x kaç derecedir?

6.



Yukarıdaki şekilde $[BA] \parallel [DE]$ ve $\frac{a}{2} = \frac{b}{4} = \frac{c}{3}$ olduğuna göre, a , b ve c açıları kaçar derecedir?

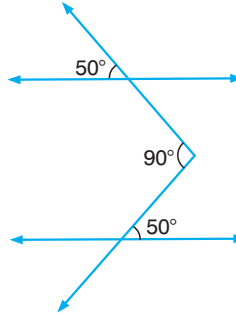
7.



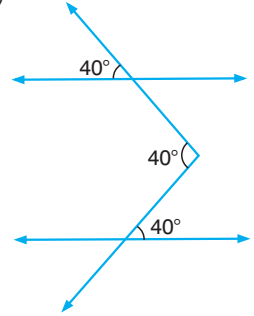
Şekilde $d_1 \parallel d_2$ olduğuna göre, x kaç derecedir?

8. Aşağıdaki şekillerin hangisinde birbirine paralel olan iki doğru vardır?

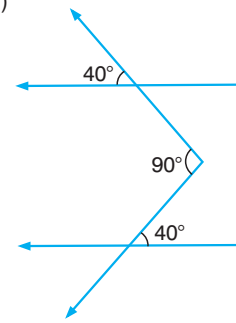
A)



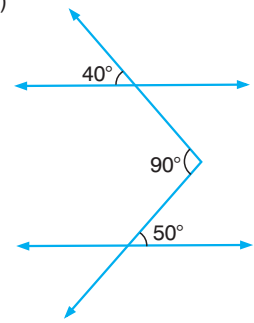
B)



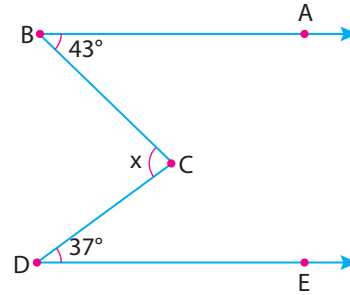
C)



D)



9.



Yukarıdaki şekilde $[BA] \parallel [DE]$, $m(\widehat{ABC}) = 43^\circ$, $m(\widehat{CDE}) = 37^\circ$ olduğuna göre, $m(\widehat{BCD})$ kaç derecedir?

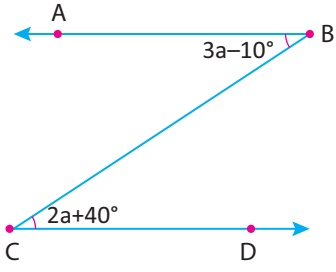
A) 80

B) 70

C) 60

D) 50

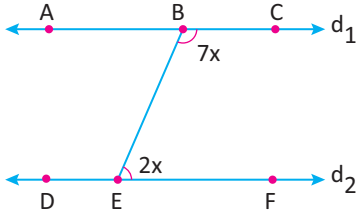
10.



Yukarıdaki şekilde $[BA \parallel CD]$, $m(\widehat{ABC}) = 3a - 10^\circ$ ve $m(\widehat{BCD}) = 2a + 40^\circ$ olduğuna göre, a kaç derecedir?

- A) 40 B) 50 C) 60 D) 70

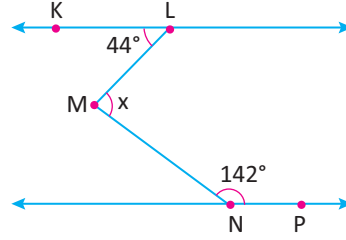
11.



Yukarıdaki şekilde $d_1 \parallel d_2$, $m(\widehat{CBE}) = 7x$ ve $m(\widehat{BEF}) = 2x$ olduğuna göre, $m(\widehat{BEF})$ kaç derecedir?

- A) 20 B) 30 C) 40 D) 50

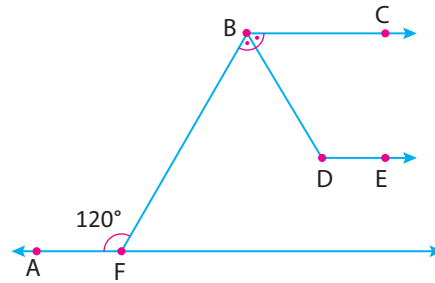
12.



Yukarıdaki şekilde $KL \parallel NP$, $m(\widehat{KLM}) = 44^\circ$, $m(\widehat{MNP}) = 142^\circ$ olduğuna göre, $m(\widehat{LMN})$ kaç derecedir?

- A) 76 B) 78 C) 82 D) 84

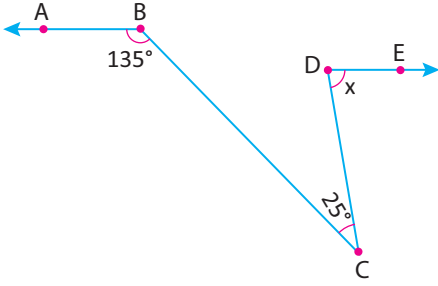
13.



Şekilde $[BC \parallel DE \parallel AF]$, $[BD]$ $\widehat{CBF}$ 'nin açıortayı, $m(\widehat{AFB}) = 120^\circ$ olduğuna göre, $m(\widehat{BDE})$ kaç derecedir?

- A) 120 B) 100 C) 80 D) 70

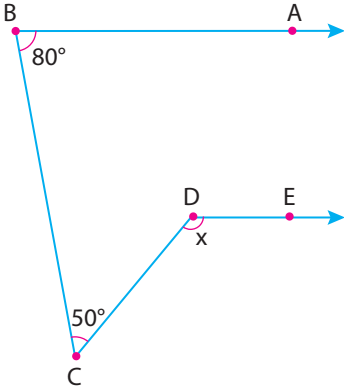
14.



Yukarıdaki şekilde $[BA \parallel DE]$, $m(\widehat{ABC}) = 135^\circ$ ve $m(\widehat{BCD}) = 25^\circ$ olduğuna göre, $m(\widehat{CDE})$ kaç derecedir?

- A) 65 B) 70 C) 75 D) 80

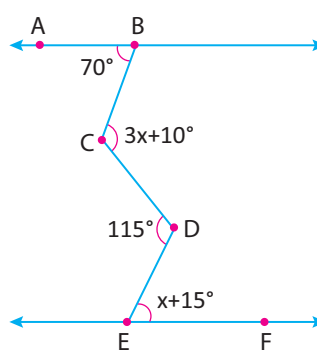
15.



Yukarıdaki şekilde $[BA \parallel DE]$, $m(\widehat{ABC}) = 80^\circ$, $m(\widehat{DCB}) = 50^\circ$ olduğuna göre, $m(\widehat{CDE})$ kaç derecedir?

- A) 110 B) 120 C) 130 D) 140

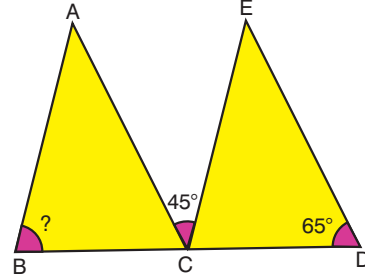
16.



Şekilde $AB \parallel EF$, $m(\widehat{ABC}) = 70^\circ$,
 $m(\widehat{BCD}) = 3x + 10^\circ$, $m(\widehat{CDE}) = 115^\circ$ ve
 $m(\widehat{DEF}) = x + 15^\circ$ olduğuna göre, x kaç derecedir?

- A) 40 B) 45 C) 50 D) 55

17.

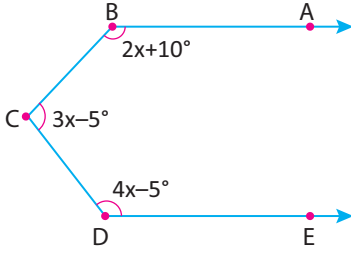


Yukarıdaki şekilde verilen ABC ve ECD üçgenlerinde $[AB \parallel CE]$ ve $[AC \parallel ED]$ 'dir.

$m(\widehat{BDE}) = 65^\circ$ ve $m(\widehat{ACE}) = 45^\circ$ olduğuna göre, $m(\widehat{ABD})$ kaç derecedir?

- A) 70 B) 65 C) 60 D) 55

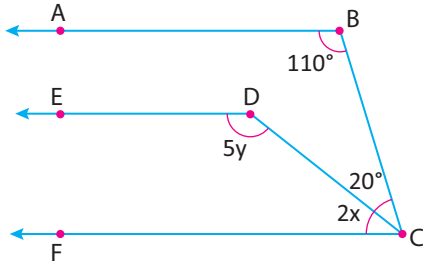
18.



Şekilde $[BA \parallel DE]$, $m(\widehat{ABC}) = 2x + 10^\circ$,
 $m(\widehat{BCD}) = 3x - 5^\circ$ ve $m(\widehat{CDE}) = 4x - 5^\circ$ olduğuna göre,
 x kaç derecedir?

- A) 20 B) 30 C) 40 D) 50

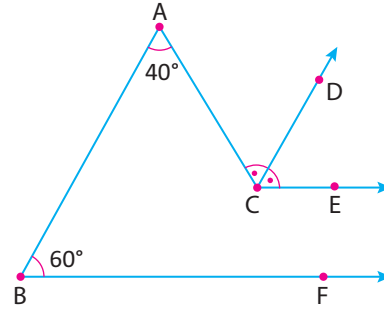
19.



Yukarıdaki şekilde $[BA \parallel DE \parallel CF]$,
 $m(\widehat{ABC}) = 110^\circ$, $m(\widehat{BCD}) = 20^\circ$, $m(\widehat{DCF}) = 2x$ ve $m(\widehat{EDC}) = 5y$ oldu-
 ğuna göre, $x + y$ kaç derecedir?

- A) 51 B) 62 C) 65 D) 73

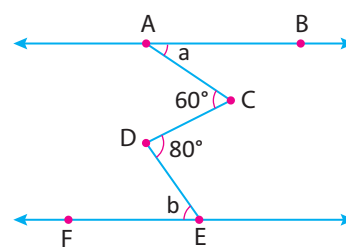
20.



Yukarıdaki şekilde $[CE \parallel BF]$, $m(\widehat{BAC}) = 40^\circ$, $m(\widehat{ABF}) = 60^\circ$, ve $[CD, \widehat{ACE}$ 'nin açıortayı ise $m(\widehat{DCE})$ kaç derecedir?

- A) 100 B) 80 C) 60 D) 50

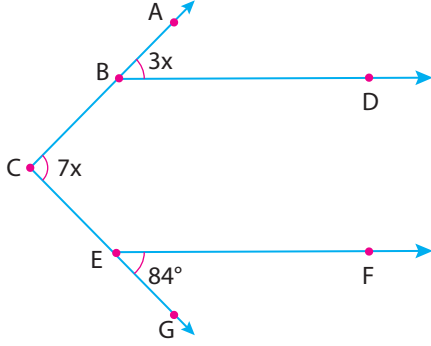
21.



Şekilde $AB \parallel FE$, $m(\widehat{BAC}) = a$, $m(\widehat{ACD}) = 60^\circ$, $m(\widehat{CDE}) = 80^\circ$ ve $m(\widehat{DEF}) = b$ olduğuna göre, $b - a$ kaç derecedir?

- A) 15 B) 20 C) 35 D) 40

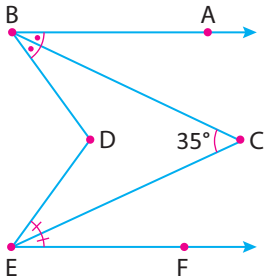
22.



Yukarıdaki şekilde $[BD] \parallel [EF]$, $m(\widehat{ABD}) = 3x$, $m(\widehat{ACG}) = 7x$ ve $m(\widehat{FEG}) = 84^\circ$ olduğuna göre, x kaç derecedir?

- A) 25 B) 23 C) 21 D) 17

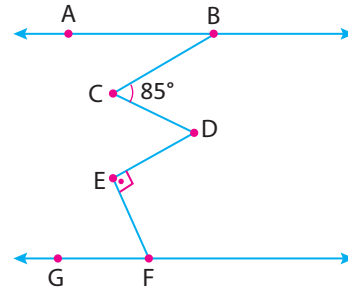
23.



Yukarıdaki şekilde $[BA] \parallel [EF]$, $m(\widehat{BCE}) = 35^\circ$, $[BC]$ ve $[CE]$ bulundukları açılarının açılırtayları olduğuna göre, $m(\widehat{BDE})$ kaç derecedir?

- A) 55 B) 60 C) 65 D) 70

24.

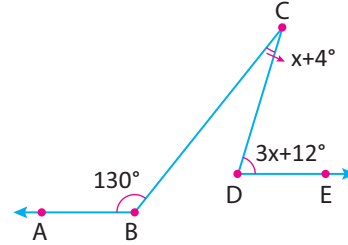


Yukarıdaki şekilde $AB \parallel FG$, $m(\widehat{BCD}) = 85^\circ$ ve $[DE] \perp [EF]$ olduğuna göre,

$m(\widehat{ABC}) + m(\widehat{CDE}) + m(\widehat{EFG})$ kaç derecedir?

- A) 165 B) 170 C) 175 D) 180

25.



Yukarıdaki şekilde $[BA] \parallel [DE]$, $m(\widehat{ABC}) = 130^\circ$, $m(\widehat{BCD}) = x + 4^\circ$ ve $m(\widehat{CDE}) = 3x + 12^\circ$ olduğuna göre, x kaç derecedir?

- A) 21 B) 24 C) 27 D) 32

SONRAKİ DERSİMİZ
ÇOKGENLER VE
GENEL ÖZELLİKLERİ