

TEST 2

Açılar (Temel Geometrik Kav.)

1. 1. Açı

$$7x$$

$$\Rightarrow 7x + 11x = 180^\circ$$

$$\Rightarrow 18x = 180^\circ$$

$$\Rightarrow x = 10^\circ$$

$$\text{Büyük açı} \rightarrow 11x = 11 \cdot 10^\circ = 110^\circ$$

Cevap: D

2. 1. Açı

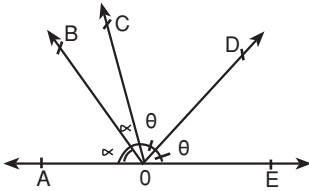
$$x$$

Açılar tümler olduğundan;

$$x + (x + 36^\circ) = 90^\circ \Rightarrow x = 27^\circ$$

Cevap: C

3.



$$2\alpha + 2\theta = 180^\circ \Rightarrow \alpha + \theta = 90^\circ$$

$$s(\widehat{DOA}) = 2\alpha + \theta = 125^\circ$$

$$\Rightarrow 2\alpha + \theta = 125^\circ$$

$$+ \quad - / \quad \alpha + \theta = 90^\circ / -$$

$$\alpha = 35^\circ \text{ bulunur.}$$

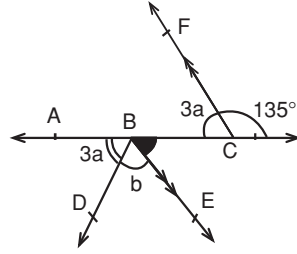
$$\Rightarrow \alpha + \theta = 90^\circ \Rightarrow 35^\circ + \theta = 90^\circ$$

$$\Rightarrow \theta = 55^\circ \text{ olarak bulunur.}$$

$$s(\widehat{EOD}) = \theta = 55^\circ$$

Cevap: C

4.



[CF// [BE $\Rightarrow s(\widehat{EBC}) = 3a$ olur. (İç ters açılar)

$$3a + 135^\circ = 180^\circ$$

$$\Rightarrow a = 15^\circ \text{ bulunur.}$$

$$3a + b + 3a = 180^\circ$$

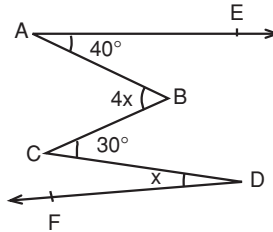
$$\Rightarrow 6 + b = 180^\circ$$

$$\Rightarrow 6 \cdot 15 + b = 180^\circ$$

$$\Rightarrow b = 90^\circ \text{ bulunur.}$$

Cevap: A

5.



$$s(\widehat{CDF}) = x \text{ olsun} \Rightarrow$$

$$s(\widehat{ABC}) = 4x \text{ olur.}$$

[AE// [DF olduğundan aynı yöne bakan açıların toplamı zıt yöne bakan açıların toplamına eşittir.

$$4x + x = 40^\circ + 30^\circ$$

$$5x = 70^\circ$$

$$x = 14^\circ$$

$$s(\widehat{ABC}) = 4x = 4 \cdot 14 = 56^\circ$$

Cevap: C

6. Aynı yöne ve zıt yöne bakan açıların toplamı eşittir.

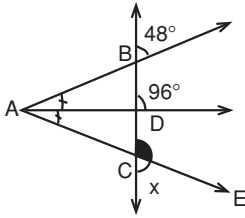
$$35 + x + 30 = 40 + 50$$

$$65 + x = 90$$

$$x = 25^{\circ}$$

Cevap: B

7.



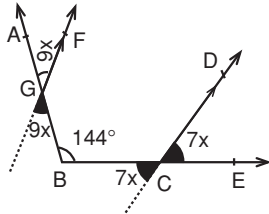
Kurala göre;

$$96^{\circ} = \frac{48^{\circ} + 180 - x}{2}$$

$$\Rightarrow 192^{\circ} = 228^{\circ} - x \Rightarrow x = 36^{\circ}$$

Cevap: C

8.



$$[GF // [CD \Rightarrow 9x + 7x = 144^{\circ}$$

$$16x = 144^{\circ}$$

$$\Rightarrow x = 9^{\circ} \text{ olur.}$$

$$s(\widehat{ECD}) = 7x = 7 \cdot 9^{\circ} = 63^{\circ}$$

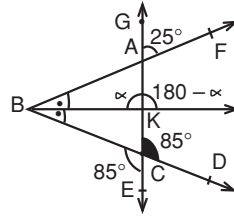
Cevap: C

9. Az önceki sorunun aynısı!

$$x = 9^{\circ} \text{ bulunmuştu!}$$

Cevap: B

10.



$$s(\widehat{BK\hat{G}}) = \alpha \text{ olsun}$$

Kuralına göre;

$$180^{\circ} - \alpha = \frac{25^{\circ} + 85^{\circ}}{2}$$

$$\Rightarrow 180^{\circ} - \alpha = \frac{110^{\circ}}{2} = 55^{\circ}$$

$$\Rightarrow \alpha = 125^{\circ}$$

Cevap: D

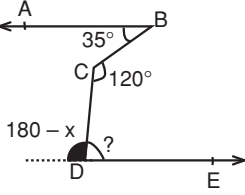
11. $[AB // [DE$ olduğundan;

$$30^{\circ} + x = 105^{\circ}$$

$$x = 75^{\circ}$$

Cevap: B

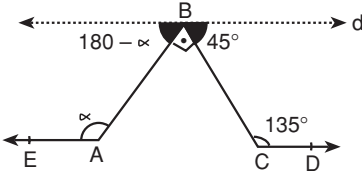
12.



[BA// [DE olduğundan
 $180 - x + 35^{\circ} = 120^{\circ}$
 $\Rightarrow 215^{\circ} - 120^{\circ} = x$
 $\Rightarrow x = 95^{\circ}$ bulunur..

Cevap: B

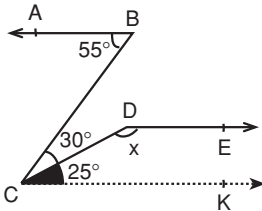
13.



$d \parallel [AE \parallel [CD$ (d çizilir.)
 $s(\widehat{EAB}) = \infty$ olsun
 $\Rightarrow 180 - \infty + 90^{\circ} + 45^{\circ} = 180^{\circ}$
 $\Rightarrow \infty = 135^{\circ}$

Cevap: A

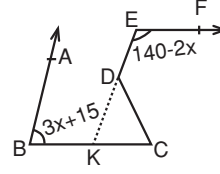
14.



[CK // [DE ([CK çizilir.)
 $s(\widehat{DCK}) = \infty$ olsun
 $55^{\circ} = 30 + \infty \Rightarrow \infty = 25^{\circ}$ olur.
 $[DE \parallel [CK \Rightarrow x + \infty = x + 25^{\circ} = 180^{\circ}$
 $\Rightarrow x = 155^{\circ}$ bulunur.

Cevap: D

15.



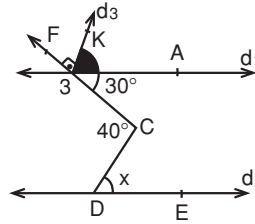
$s(\widehat{DKC}) = 3x + 15^{\circ}$ 'dir. (Yöndeş açılar.)
 $s(\widehat{DKC}) + s(\widehat{KEF}) = 180^{\circ}$ 'dir.
 $\Rightarrow 3x + 15^{\circ} + 140 - 2x = 180^{\circ}$
 $\Rightarrow x = 25^{\circ}$

Cevap: C

16. $120^{\circ} + 3a = 180^{\circ}$ ve $x + 2a = 180^{\circ}$ 'dir. $a = 20^{\circ}$ bulunur. $x + 2a = 180^{\circ} \Rightarrow x + 2 \cdot 20^{\circ} = 180^{\circ}$ $\Rightarrow x = 140^{\circ}$

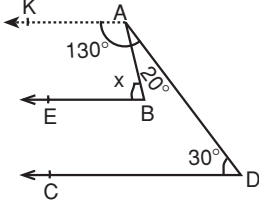
Cevap: D

17.

 $s(\widehat{KBA}) = 60^{\circ}$ olur. (Doğru açı) $s(\widehat{KBA}) = \frac{3}{2} \cdot s(\widehat{BCD})$ $\Rightarrow 60^{\circ} = \frac{3}{2} \cdot s(\widehat{BCD})$ $\Rightarrow s(\widehat{BCD}) = 40^{\circ}$ bulunur. $d_1 \parallel d_2$ olduğundan; $30 + x = 40^{\circ}$ $x = 10^{\circ}$

Cevap: B

18.



[AK// [BE ([AK çizilir.)

$s(\widehat{B\hat{A}K}) = \infty$ olsun

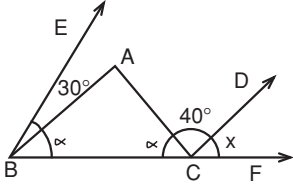
$$\alpha + 20^\circ + 30^\circ = 180^\circ \Rightarrow \alpha = 130^\circ$$

[AK// [BE olduğundan;

$$130^\circ + x = 180^\circ \Rightarrow x = 50^\circ$$

Cevap: D

19.



$s(\widehat{A\hat{B}C}) = s(\widehat{A\hat{C}B}) = \infty$ olsun

[BE// [CD olduğundan;

$$(30 + \infty) + (\infty + 40) = 180^\circ$$

$$\Rightarrow \infty = 55^\circ \text{ bulunur.}$$

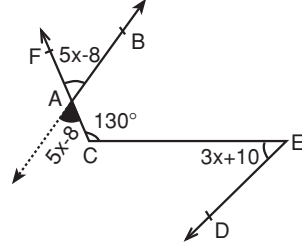
$s(\widehat{E\hat{B}C}) = s(\widehat{D\hat{C}F})$ 'dir. (Yöndeş açılar)

$$s(\widehat{E\hat{B}C}) = 30 + \infty = 30^\circ + 55^\circ = 85^\circ$$

olarak bulunur.

Cevap: D

20.



[AB// [AD olduğundan

$$5x - 8 + 3x + 10 = 130^\circ$$

$$\Rightarrow 8x + 2 = 130^\circ$$

$$\Rightarrow 8x = 128^\circ$$

$$\Rightarrow x = 16^\circ \text{ bulunur.}$$

$s(\widehat{C\hat{E}D}) = 3x + 10$

$$= 3 \cdot (16) + 10^\circ$$

$$= 58^\circ$$

Cevap: B