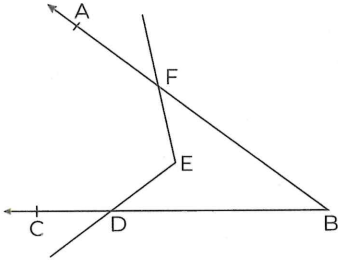


LINES AND ANGLES

DOĞRUDA AÇI

1.

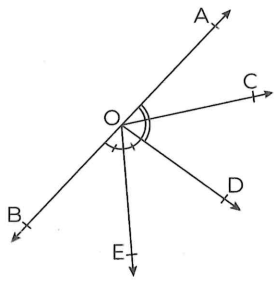


$m(\widehat{ABC}) \cap \widehat{FED}$ ifadesi aşağıdakilerden hangisine eşittir?

$(\widehat{ABC}) \cap \widehat{FED}$ is equal to which of the following?

- A) $[DE] \cup [EF]$ B) $m(\widehat{FBD})$ C) $m(\widehat{FED})$
D) BDEF E) $\{F, B, D, E\}$

2.



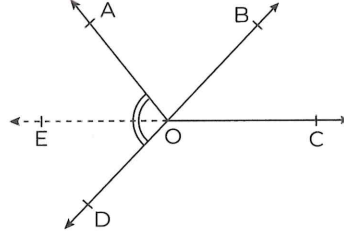
A, O, B **doğrusal** (linear)

$m(\widehat{AOC}) = m(\widehat{COD}), m(\widehat{DOE}) = m(\widehat{EOB}) = 70^\circ$

$\Rightarrow m(\widehat{AOC}) = ?$

- A) 10 B) 15 C) 20 D) 28 E) 30

3.



B, O, D **doğrusal** (linear), $[OA] \perp [OB]$

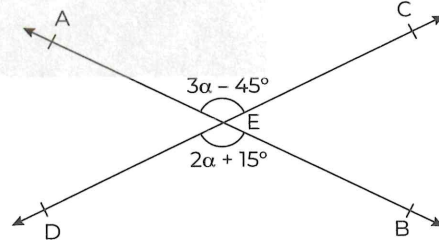
$m(\widehat{AOE}) = m(\widehat{EOD})$

$\Rightarrow m(\widehat{DOC}) = ?$

- A) 110 B) 115 C) 120 D) 135 E) 150

PUZA ACADEMY

4.

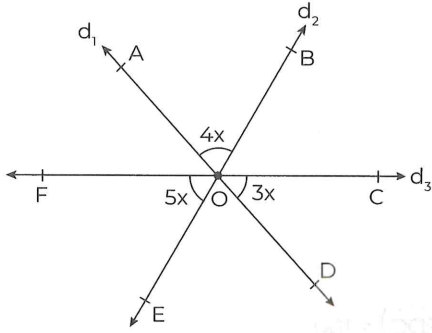


$m(\widehat{AEC}) = 3\alpha - 45^\circ, m(\widehat{DEB}) = 2\alpha + 15^\circ$

$\Rightarrow m(\widehat{CEB}) = ?$

- A) 30 B) 45 C) 90 D) 135 E) 145

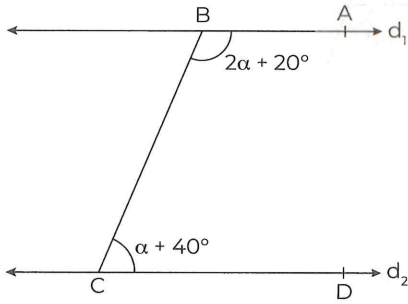
5.



$$m(\widehat{COD}) = 3x, m(\widehat{AOB}) = 4x, m(\widehat{FOE}) = 5x \\ \Rightarrow x = ?$$

- A) 8 B) 10 C) 12 D) 15 E) 18

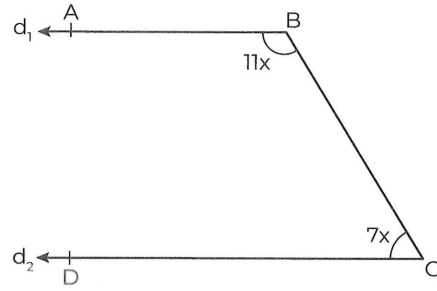
6.



$$d_1 \parallel d_2, m(\widehat{ABC}) = 2\alpha + 20^\circ, m(\widehat{DCB}) = \alpha + 40^\circ \\ \Rightarrow \alpha = ?$$

- A) 20 B) 25 C) 30 D) 40 E) 45

7.

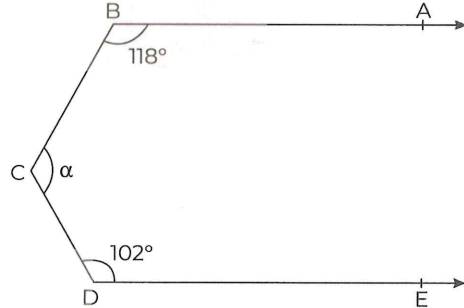


$$d_1 \parallel d_2, m(\widehat{ABC}) = 11x, m(\widehat{BCD}) = 7x \\ \Rightarrow x = ?$$

- A) 5 B) 8 C) 10 D) 12 E) 15

PUZA ACADEMY

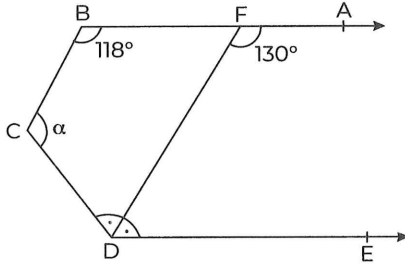
8.



$$[BA \parallel [DE, m(\widehat{ABC}) = 118^\circ, m(\widehat{CDE}) = 102^\circ \\ m(\widehat{BCD}) = \alpha \Rightarrow \alpha = ?$$

- A) 100 B) 120 C) 140 D) 142 E) 148

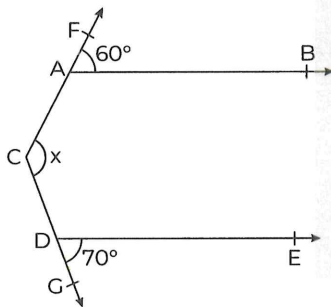
9.



[BA // DE, $m(\widehat{ABC}) = 118^\circ$, $m(\widehat{AFD}) = 130^\circ$
 $m(\widehat{CDF}) = m(\widehat{FDE})$, $m(\widehat{BCD}) = \alpha$
 $\Rightarrow \alpha = ?$

- A) 100 B) 112 C) 138 D) 142 E) 150

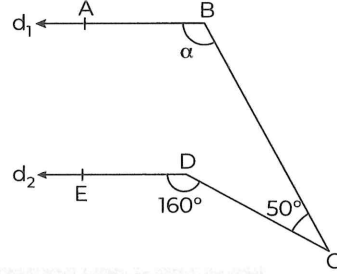
10.



[AB // DE, $m(\widehat{FAB}) = 60^\circ$, $m(\widehat{EDG}) = 70^\circ$
 $m(\widehat{ACD}) = x \Rightarrow x = ?$

- A) 100 B) 110 C) 120 D) 125 E) 130

11.

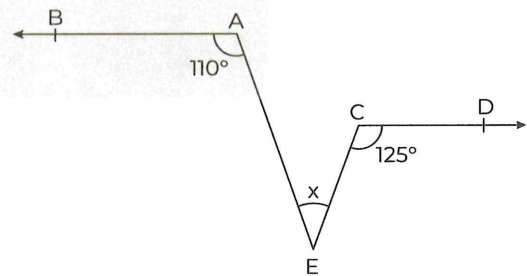


$d_1 // d_2$, $m(\widehat{EDC}) = 160^\circ$, $m(\widehat{BCD}) = 50^\circ$
 $m(\widehat{ABC}) = \alpha$
 $\Rightarrow \alpha = ?$

- A) 100 B) 110 C) 115 D) 120 E) 130

PUZA ACADEMY

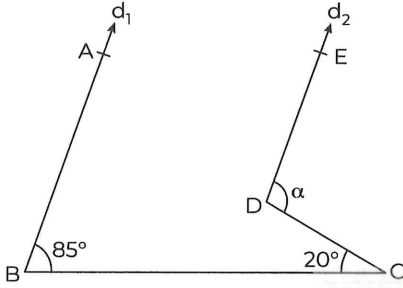
12.



[AB // CD, $m(\widehat{EAB}) = 110^\circ$, $m(\widehat{ECD}) = 125^\circ$
 $m(\widehat{AEC}) = x$
 $\Rightarrow x = ?$

- A) 50 B) 55 C) 60 D) 65 E) 70

13.



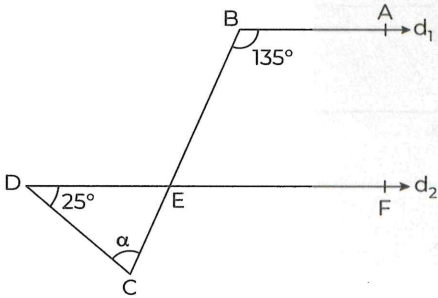
$$d_1 \parallel d_2$$

$$m(\widehat{ABC}) = 85^\circ, m(\widehat{BCD}) = 20^\circ, m(\widehat{EDC}) = \alpha$$

$$\Rightarrow \alpha = ?$$

- A) 85 B) 90 C) 95 D) 100 E) 105

14.

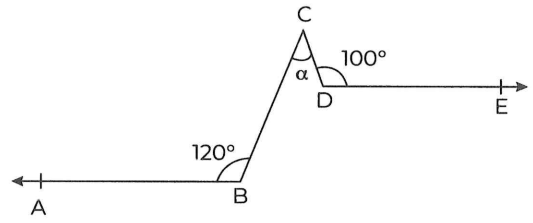


$$d_1 \parallel d_2, m(\widehat{EDC}) = 25^\circ, m(\widehat{CBA}) = 135^\circ$$

$$m(\widehat{DCB}) = \alpha \Rightarrow \alpha = ?$$

- A) 70 B) 80 C) 100 D) 110 E) 120

15.



$$[BA \parallel DE, m(\widehat{CDE}) = 100^\circ, m(\widehat{ABC}) = 120^\circ$$

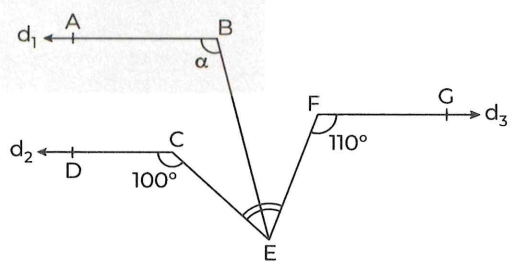
$$m(\widehat{BCD}) = \alpha$$

$$\Rightarrow \alpha = ?$$

- A) 20 B) 30 C) 40 D) 50 E) 60

PUZA ACADEMY

16.

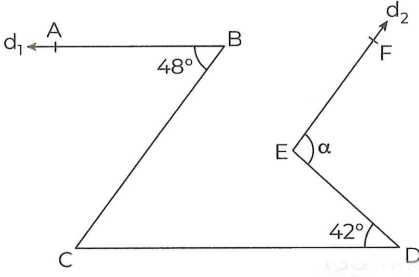


$$d_1 \parallel d_2 \parallel d_3, m(\widehat{DCE}) = 100^\circ, m(\widehat{EFG}) = 110^\circ$$

$$m(\widehat{CEB}) = m(\widehat{BEF}), m(\widehat{ABE}) = \alpha \Rightarrow \alpha = ?$$

- A) 75 B) 80 C) 85 D) 90 E) 95

17.



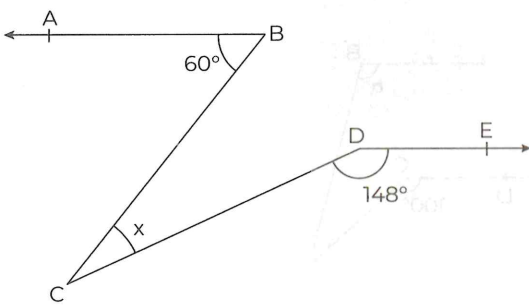
$[BA \parallel CD]$, $[BC \parallel EF]$

$$m(\widehat{EDC}) = 42^\circ , m(\widehat{ABC}) = 48^\circ , m(\widehat{FED}) = \alpha$$

$$\Rightarrow \alpha = ?$$

- A) 80 B) 88 C) 90 D) 92 E) 100

18.



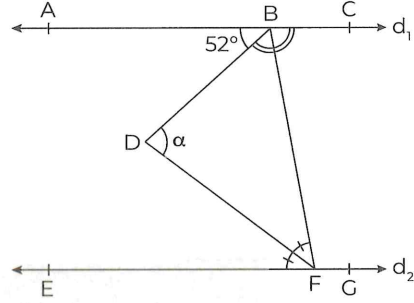
$[BA \parallel DE]$,

$$m(\widehat{ABC}) = 60^\circ , m(\widehat{CDE}) = 148^\circ , m(\widehat{BCD}) = x$$

$$\Rightarrow x = ?$$

- A) 22 B) 24 C) 26 D) 28 E) 30

19.

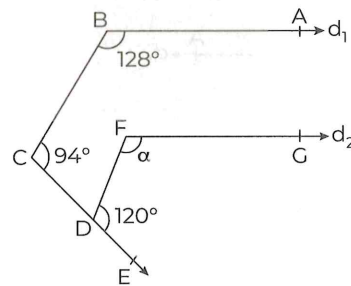


$$d_1 \parallel d_2 , m(\widehat{CBF}) = m(\widehat{BDF}) , m(\widehat{BFD}) = m(\widehat{DFE})$$

$$m(\widehat{ABD}) = 52^\circ , m(\widehat{BDF}) = \alpha \Rightarrow \alpha = ?$$

- A) 48 B) 84 C) 98 D) 110 E) 112

20.

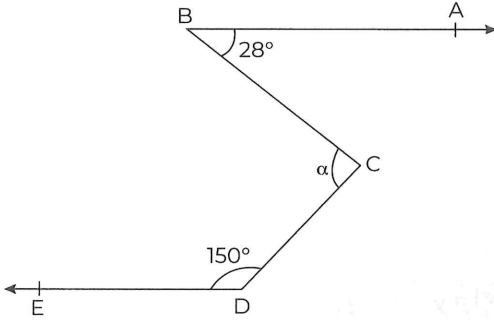


$$d_1 \parallel d_2 , m(\widehat{BCE}) = 94^\circ , m(\widehat{FDE}) = 120^\circ$$

$$m(\widehat{ABC}) = 128^\circ , m(\widehat{GFD}) = \alpha \Rightarrow \alpha = ?$$

- A) 102 B) 128 C) 132 D) 138 E) 144

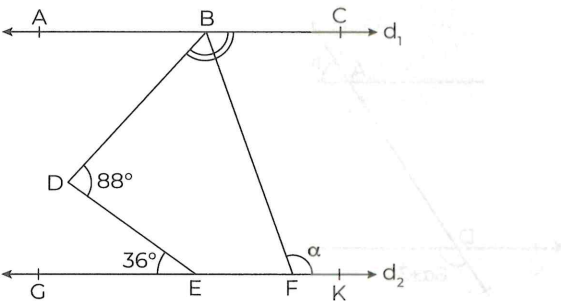
21.



$[BA \parallel DE, m(\widehat{ABC}) = 28^\circ, m(\widehat{CDE}) = 150^\circ$
 $m(\widehat{BCD}) = \alpha$
 $\Rightarrow \alpha = ?$

- A) 28 B) 30 C) 38 D) 58 E) 132

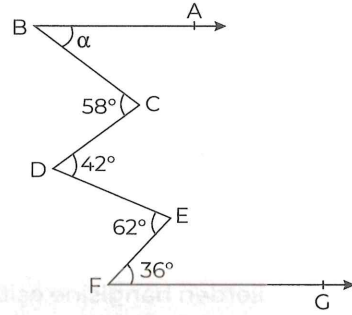
22.



$d_1 \parallel d_2, m(\widehat{CBF}) = m(\widehat{FBD}), m(\widehat{DEG}) = 36^\circ$
 $m(\widehat{BDE}) = 88^\circ, m(\widehat{BFK}) = \alpha \Rightarrow \alpha = ?$

- A) 106 B) 108 C) 112 D) 116 E) 120

23.

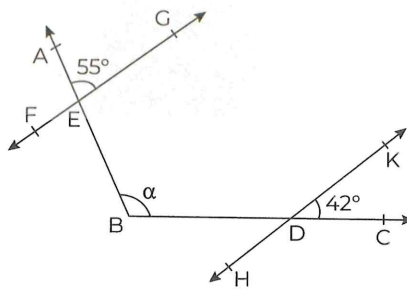


$[BA \parallel FG, m(\widehat{BCD}) = 58^\circ, m(\widehat{CDE}) = 42^\circ$
 $m(\widehat{DEF}) = 62^\circ, m(\widehat{EFG}) = 36^\circ, m(\widehat{ABC}) = \alpha$
 $\Rightarrow \alpha = ?$

- A) 38 B) 40 C) 42 D) 48 E) 52

PUZA ACADEMY

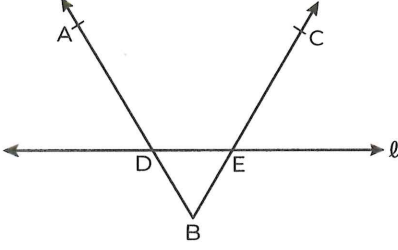
24.



$FG \parallel HK, m(\widehat{AEG}) = 55^\circ, m(\widehat{KDC}) = 42^\circ$
 $m(\widehat{ABC}) = \alpha \Rightarrow \alpha = ?$

- A) 83 B) 87 C) 92 D) 97 E) 103

1.

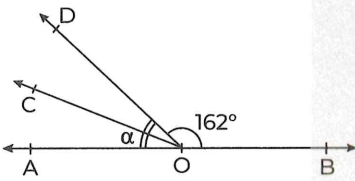


$\widehat{ABC} \cap l$ ifadesi aşağıdakilerden hangisine eşittir?

This expression is equivalent to which of the following?

- A) $m(\widehat{ABC})$ B) $\{D, E\}$ C) $[DE]$
D) $ADEC$ E) $[DE] \cup m(\widehat{DBE})$

2.



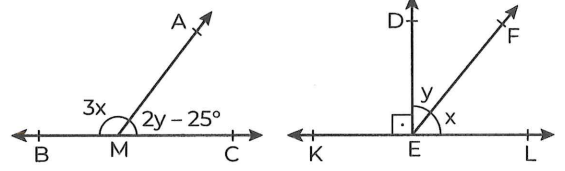
A, O, B **doğrusal** (linear)

$$m(\widehat{DOC}) = m(\widehat{COA}) = \alpha$$

$$m(\widehat{DOB}) = 162^\circ \Rightarrow \alpha = ?$$

- A) 8 B) 9 C) 11 D) 12 E) 14

3.



$$m(\widehat{AMB}) = 3x, m(\widehat{CMA}) = 2y - 25^\circ, m(\widehat{FEL}) = x$$

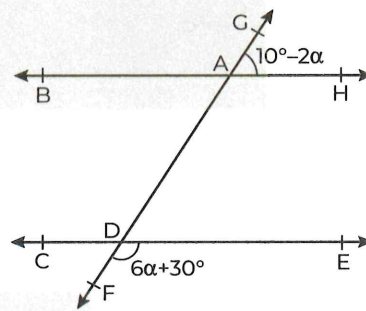
$$m(\widehat{DEF}) = y$$

$$\Rightarrow y = ?$$

- A) 54 B) 55 C) 60 D) 65 E) 70

PUZA ACADEMY

4.



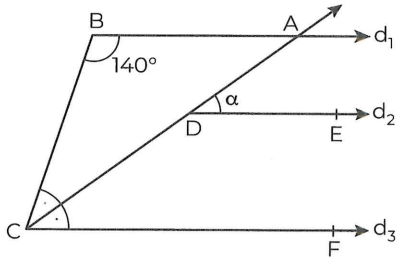
$$BH \parallel CE, m(\widehat{GAH}) = 10^\circ - 2\alpha,$$

$$m(\widehat{EDF}) = 6\alpha + 30^\circ$$

$$\Rightarrow \alpha = ?$$

- A) 10 B) 15 C) 20 D) 35 E) 40

5.

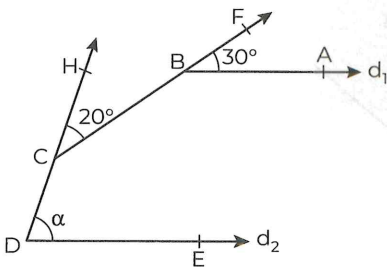


$d_1 \parallel d_2 \parallel d_3$, $m(\widehat{BCA}) = m(\widehat{ACF})$, $m(\widehat{ABC}) = 140^\circ$
 $m(\widehat{ADE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 10 B) 15 C) 20 D) 25 E) 30

6.

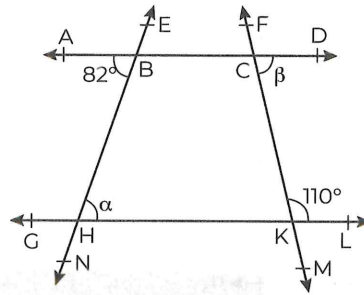


$d_1 \parallel d_2$, $m(\widehat{ABF}) = 30^\circ$, $m(\widehat{HCF}) = 20^\circ$
 $m(\widehat{EDH}) = \alpha$

$\Rightarrow \alpha = ?$

A) 40 B) 50 C) 60 D) 70 E) 80

7.



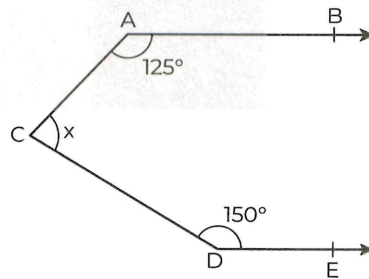
$AD \parallel GL$, $m(\widehat{ABN}) = 82^\circ$, $m(\widehat{FKL}) = 110^\circ$
 $m(\widehat{EHL}) = \alpha$, $m(\widehat{DCM}) = \beta$

$\Rightarrow \alpha - \beta = ?$

A) 10 B) 12 C) 20 D) 28 E) 30

PUZZA ACADEMY

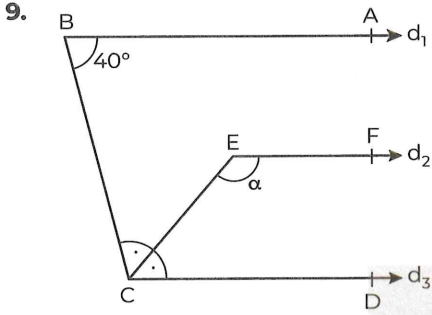
8.



$[AB \parallel [DE$, $m(\widehat{BAC}) = 125^\circ$, $m(\widehat{CDE}) = 150^\circ$
 $m(\widehat{ACD}) = x$

$\Rightarrow x = ?$

A) 70 B) 75 C) 80 D) 85 E) 90



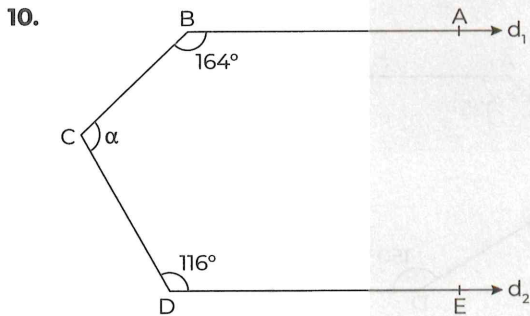
$$d_1 \parallel d_2 \parallel d_3,$$

$$m(\widehat{ABC}) = 40^\circ, m(\widehat{BCE}) = m(\widehat{ECD})$$

$$m(\widehat{CEF}) = \alpha$$

$$\Rightarrow \alpha = ?$$

- A) 115 B) 110 C) 100 D) 90 E) 85

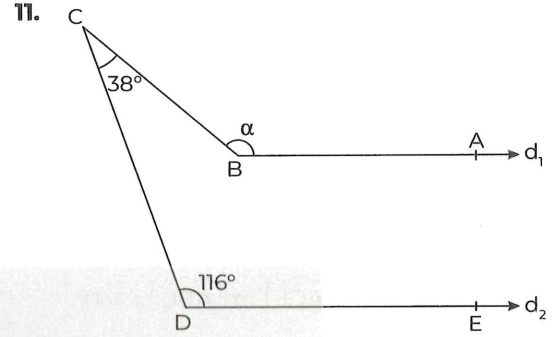


$$d_1 \parallel d_2$$

$$m(\widehat{CDE}) = 116^\circ, m(\widehat{ABC}) = 164^\circ, m(\widehat{BCD}) = \alpha$$

$$\Rightarrow \alpha = ?$$

- A) 70 B) 74 C) 76 D) 80 E) 84



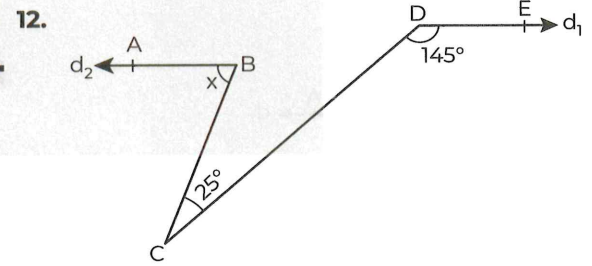
$$d_1 \parallel d_2$$

$$m(\widehat{BCD}) = 38^\circ, m(\widehat{CDE}) = 116^\circ, m(\widehat{CBA}) = \alpha$$

$$\Rightarrow \alpha = ?$$

- A) 142 B) 154 C) 156 D) 168 E) 174

PUZZA ACADEMY



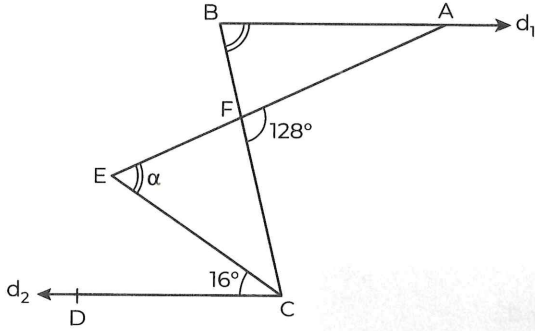
$$d_1 \parallel d_2,$$

$$m(\widehat{BCD}) = 25^\circ, m(\widehat{CDE}) = 145^\circ, m(\widehat{ABC}) = x$$

$$\Rightarrow x = ?$$

- A) 40 B) 50 C) 60 D) 70 E) 80

13.



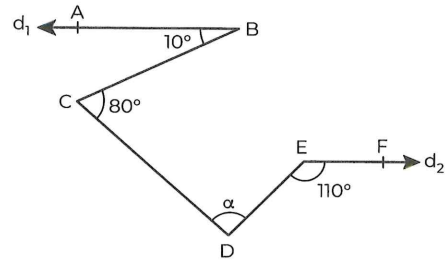
$$d_1 \parallel d_2$$

$$m(\widehat{ABC}) = m(\widehat{AEC}) = \alpha, m(\widehat{DCE}) = 16^\circ$$

$$m(\widehat{AFC}) = 128^\circ \Rightarrow \alpha = ?$$

- A) 68 B) 70 C) 72 D) 74 E) 78

15.



$$d_1 \parallel d_2,$$

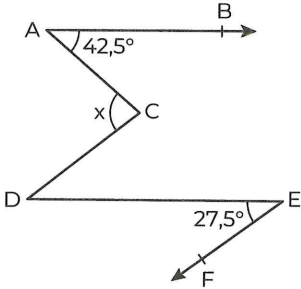
$$m(\widehat{ABC}) = 10^\circ, m(\widehat{BCD}) = 80^\circ, m(\widehat{FED}) = 110^\circ$$

$$m(\widehat{CDE}) = \alpha$$

$$\Rightarrow \alpha = ?$$

- A) 70 B) 60 C) 40 D) 20 E) 10

14.



$$[AB] \parallel [DE], [DC] \parallel [EF],$$

$$m(\widehat{BAC}) = 42,5^\circ, m(\widehat{ACD}) = x$$

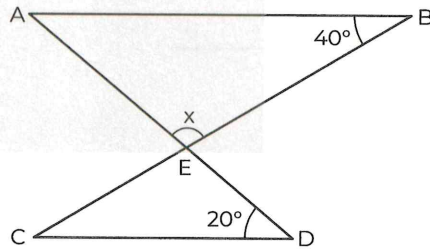
$$m(\widehat{DEF}) = 27,5^\circ$$

$$\Rightarrow x = ?$$

- A) 30 B) 40 C) 50 D) 60 E) 70

PUZA ACADEMY

16.

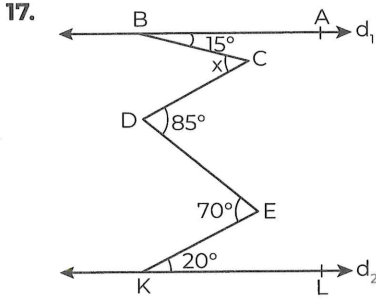


$$[AB] \parallel [CD],$$

$$m(\widehat{CBA}) = 40^\circ, m(\widehat{ADC}) = 20^\circ, m(\widehat{AEB}) = x$$

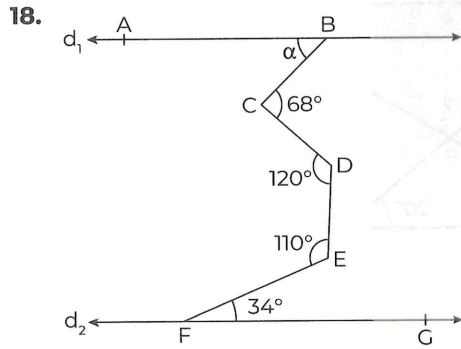
$$\Rightarrow x = ?$$

- A) 110 B) 115 C) 120 D) 125 E) 130



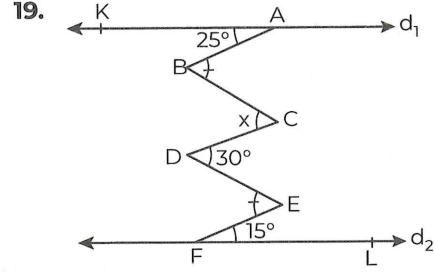
$d_1 \parallel d_2$, $m(\widehat{ABC}) = 15^\circ$, $m(\widehat{CDE}) = 85^\circ$
 $m(\widehat{DEK}) = 70^\circ$, $m(\widehat{EKL}) = 20^\circ$, $m(\widehat{BCD}) = x$
 $\Rightarrow x = ?$

- A) 40 B) 50 C) 60 D) 70 E) 80



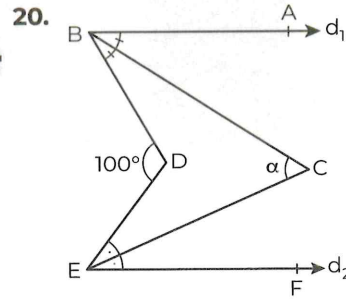
$d_1 \parallel d_2$,
 $m(\widehat{EFG}) = 34^\circ$, $m(\widehat{BCD}) = 68^\circ$, $m(\widehat{DEF}) = 110^\circ$
 $m(\widehat{CDE}) = 120^\circ$, $m(\widehat{ABC}) = \alpha$
 $\Rightarrow \alpha = ?$

- A) 42 B) 48 C) 52 D) 56 E) 60



$d_1 \parallel d_2$,
 $m(\widehat{KAB}) = 25^\circ$, $m(\widehat{CDE}) = 30^\circ$, $m(\widehat{EFL}) = 15^\circ$
 $m(\widehat{ABC}) = m(\widehat{DEF})$, $m(\widehat{BCD}) = x$
 $\Rightarrow x = ?$

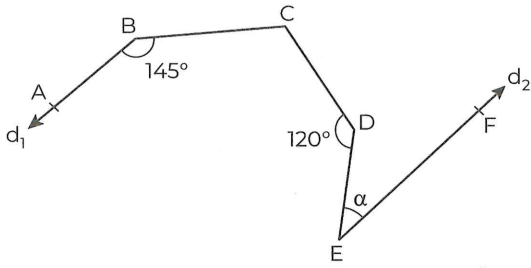
- A) 15 B) 20 C) 25 D) 30 E) 35



$d_1 \parallel d_2$,
 $m(\widehat{ABC}) = m(\widehat{CBD})$, $m(\widehat{DEC}) = m(\widehat{FEC})$
 $m(\widehat{BDE}) = 100^\circ$, $m(\widehat{BCE}) = \alpha$
 $\Rightarrow \alpha = ?$

- A) 40 B) 45 C) 50 D) 55 E) 60

21.



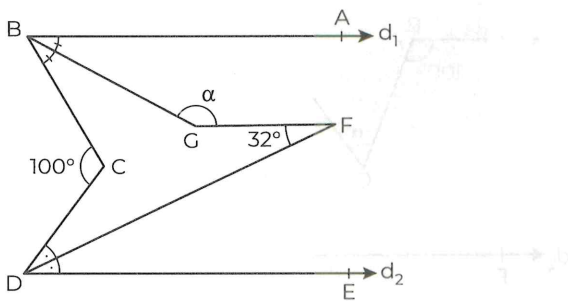
$d_1 \parallel d_2$, $[BC] \perp [DE]$

$m(\widehat{CDE}) = 120^\circ$, $m(\widehat{ABC}) = 145^\circ$, $m(\widehat{DEF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 35 B) 40 C) 45 D) 50 E) 55

22.



$d_1 \parallel d_2$,

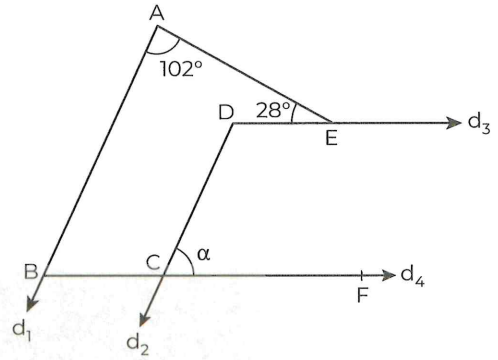
$m(\widehat{ABG}) = m(\widehat{GBC})$, $m(\widehat{CDE}) = m(\widehat{FDE})$

$m(\widehat{BCD}) = 128^\circ$, $m(\widehat{ABG}) = \alpha$

$\Rightarrow \alpha = ?$

A) 154 B) 156 C) 158 D) 162 E) 164

23.



$d_1 \parallel d_2$, $d_3 \parallel d_4$,

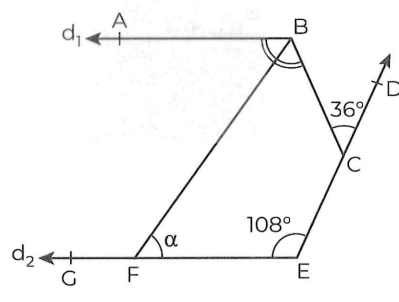
$m(\widehat{DEA}) = 28^\circ$, $m(\widehat{BAE}) = 102^\circ$, $m(\widehat{DCF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 36 B) 42 C) 48 D) 50 E) 52

PUZA ACADEMY

24.



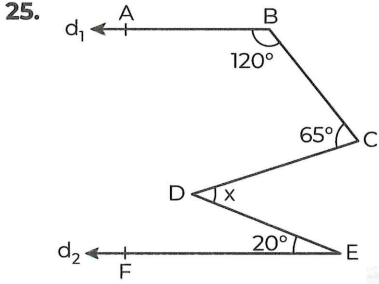
$d_1 \parallel d_2$,

$m(\widehat{ABF}) = m(\widehat{FBC})$, $m(\widehat{BCD}) = 36^\circ$

$m(\widehat{DEG}) = 108^\circ$, $m(\widehat{BFE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 52 B) 54 C) 58 D) 60 E) 62



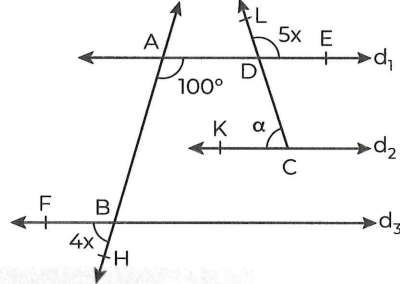
$d_1 \parallel d_2$,

$$m(\widehat{ABC}) = 120^\circ, m(\widehat{BCD}) = 65^\circ, m(\widehat{DEF}) = 20^\circ$$

$$m(\widehat{CDE}) = x \Rightarrow x = ?$$

- A) 20 B) 25 C) 30 D) 35 E) 40

27.



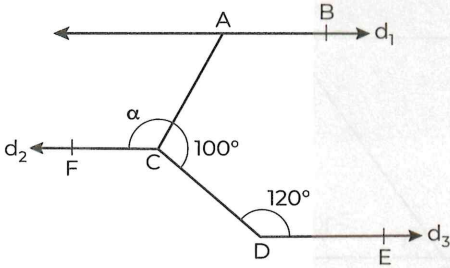
$d_1 \parallel d_2 \parallel d_3$,

$$m(\widehat{EAB}) = 100^\circ, m(\widehat{EDL}) = 5x, m(\widehat{FBH}) = 4x$$

$$m(\widehat{DCK}) = \alpha \Rightarrow \alpha = ?$$

- A) 40 B) 50 C) 60 D) 70 E) 80

26.



$d_1 \parallel d_2 \parallel d_3$,

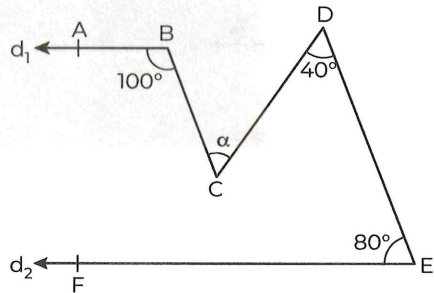
$$m(\widehat{ACD}) = 100^\circ, m(\widehat{EDC}) = 120^\circ, m(\widehat{FCA}) = \alpha$$

$$\Rightarrow \alpha = ?$$

- A) 140 B) 120 C) 110 D) 100 E) 80

PUZZA ACADEMY

28.



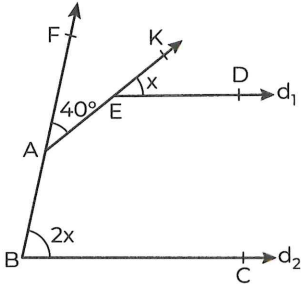
$d_1 \parallel d_2$,

$$m(\widehat{ABC}) = 100^\circ, m(\widehat{CDE}) = 40^\circ, m(\widehat{DEF}) = 80^\circ$$

$$m(\widehat{BCD}) = \alpha \Rightarrow \alpha = ?$$

- A) 60 B) 50 C) 40 D) 30 E) 20

29.



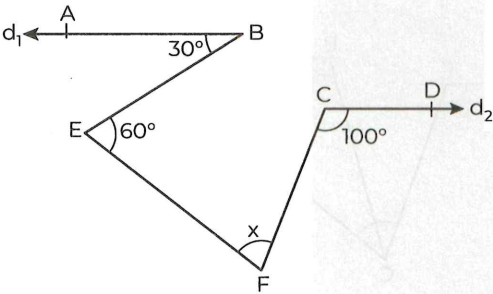
$$d_1 \parallel d_2,$$

$$m(\widehat{FAK}) = 40^\circ, m(\widehat{FBC}) = 2x, m(\widehat{KED}) = x$$

$$\Rightarrow x = ?$$

- A) 20 B) 30 C) 40 D) 50 E) 60

30.



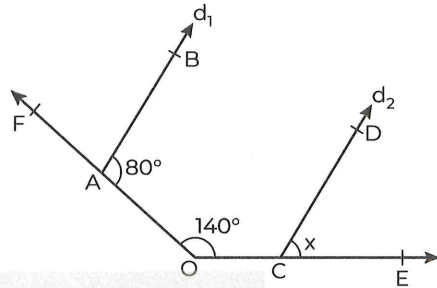
$$d_1 \parallel d_2,$$

$$m(\widehat{ABE}) = 30^\circ, m(\widehat{BEF}) = 60^\circ, m(\widehat{DCF}) = 100^\circ$$

$$m(\widehat{EFC}) = x \Rightarrow x = ?$$

- A) 30 B) 40 C) 50 D) 60 E) 70

31.



$$d_1 \parallel d_2,$$

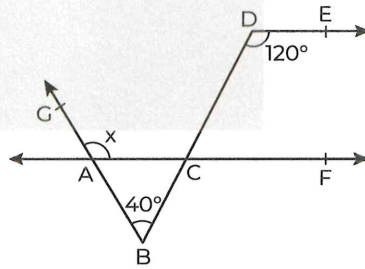
$$m(\widehat{BAO}) = 80^\circ, m(\widehat{AOC}) = 140^\circ, m(\widehat{DCE}) = x$$

$$\Rightarrow x = ?$$

- A) 40 B) 55 C) 60 D) 65 E) 70

PUZA ACADEMY

32.



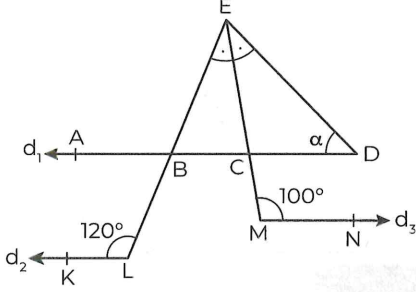
$$[DE \parallel [AF,$$

$$m(\widehat{EDB}) = 120^\circ, m(\widehat{DBG}) = 40^\circ, m(\widehat{GAF}) = x$$

$$\Rightarrow x = ?$$

- A) 80 B) 85 C) 90 D) 95 E) 100

33.



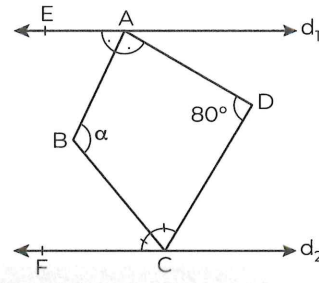
$$d_1 \parallel d_2 \parallel d_3,$$

$$m(\widehat{KLE}) = 120^\circ, m(\widehat{EMN}) = 100^\circ$$

$$m(\widehat{MEL}) = m(\widehat{DEM}), m(\widehat{EDA}) = \alpha \Rightarrow \alpha = ?$$

- A) 20 B) 30 C) 40 D) 50 E) 60

35.



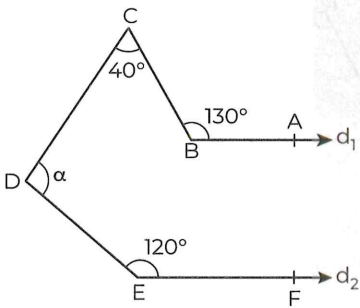
$$d_1 \parallel d_2,$$

$$m(\widehat{EAB}) = m(\widehat{BAD}), m(\widehat{FCB}) = m(\widehat{BCD})$$

$$m(\widehat{ADC}) = 80^\circ, m(\widehat{ABC}) = \alpha \Rightarrow \alpha = ?$$

- A) 140 B) 135 C) 130 D) 125 E) 120

34.



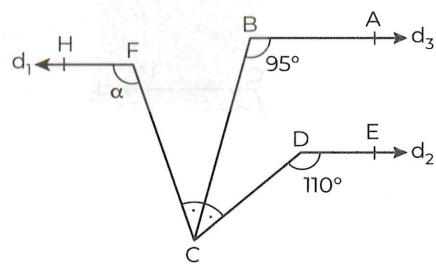
$$d_1 \parallel d_2,$$

$$m(\widehat{ABC}) = 130^\circ, m(\widehat{BCD}) = 40^\circ, m(\widehat{FED}) = 120^\circ$$

$$m(\widehat{CDE}) = \alpha \Rightarrow \alpha = ?$$

- A) 110 B) 120 C) 130 D) 140 E) 150

36.



$$d_1 \parallel d_2 \parallel d_3,$$

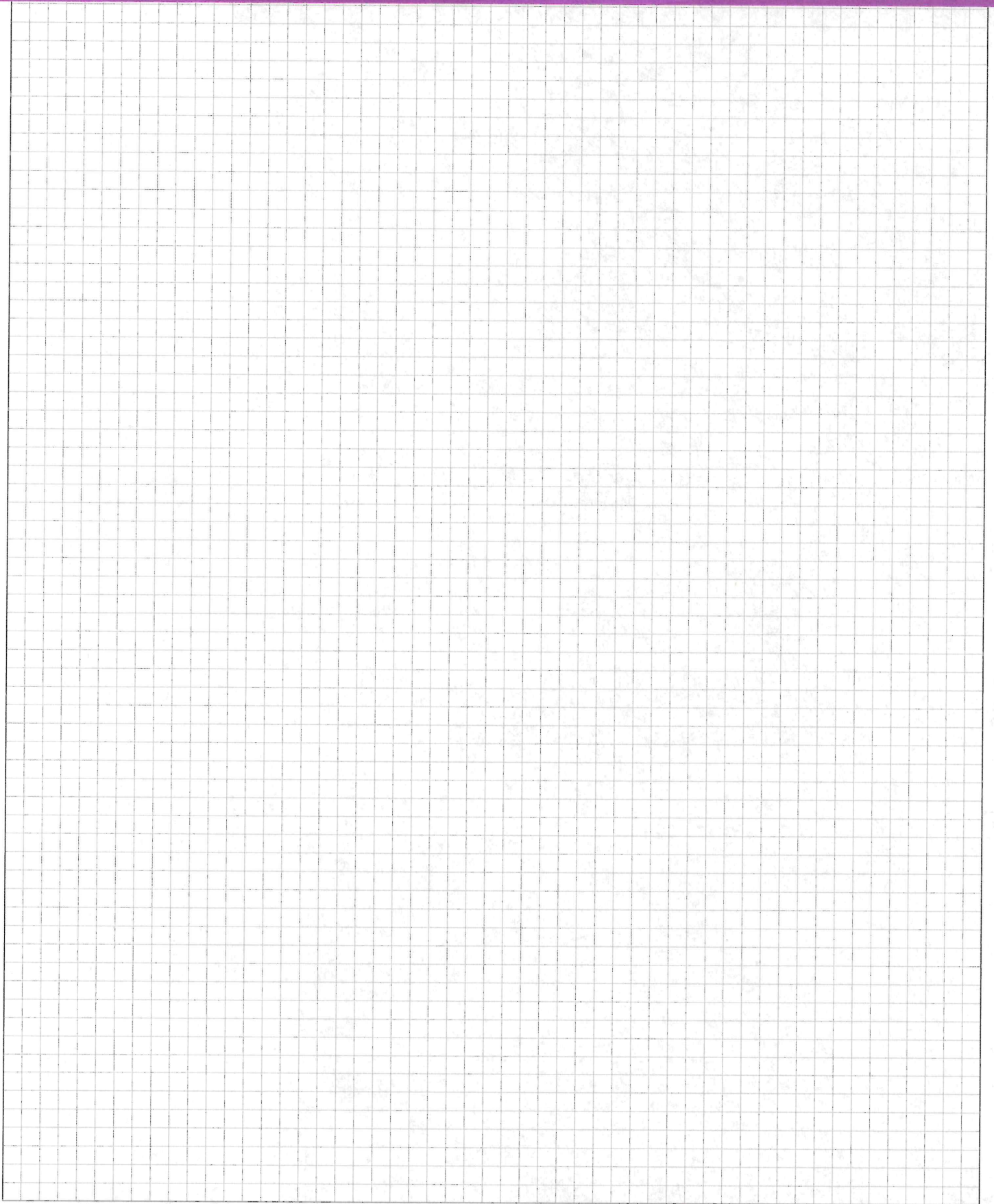
$$m(\widehat{ABC}) = 95^\circ, m(\widehat{EDC}) = 110^\circ$$

$$m(\widehat{BCD}) = m(\widehat{BCF}), m(\widehat{HFC}) = \alpha \Rightarrow \alpha = ?$$

- A) 90 B) 100 C) 110 D) 120 E) 130



NOTES:



LINES AND ANGLES

DOĞRUDA
AÇI

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
A	C	D	B	D	D	C	C	D	E	B	B

13	14	15	16	17	18	19	20	21	22	23	24
E	D	C	C	C	D	B	A	D	D	C	D

TEST 1B

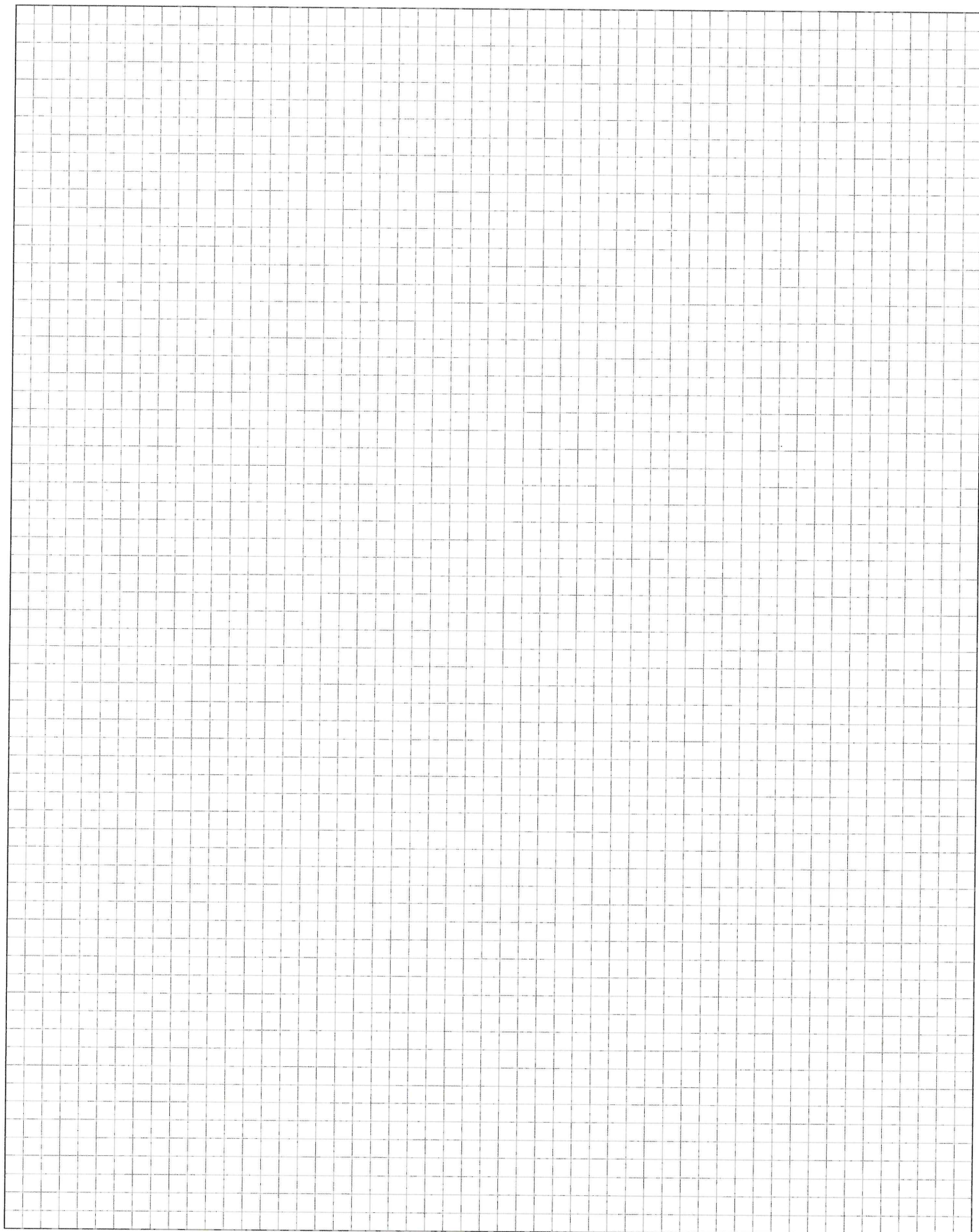
1	2	3	4	5	6	7	8	9	10	11	12
B	B	D	D	C	B	B	D	B	D	B	C

13	14	15	16	17	18	19	20	21	22	23	24
C	E	C	C	B	C	B	C	E	D	D	B

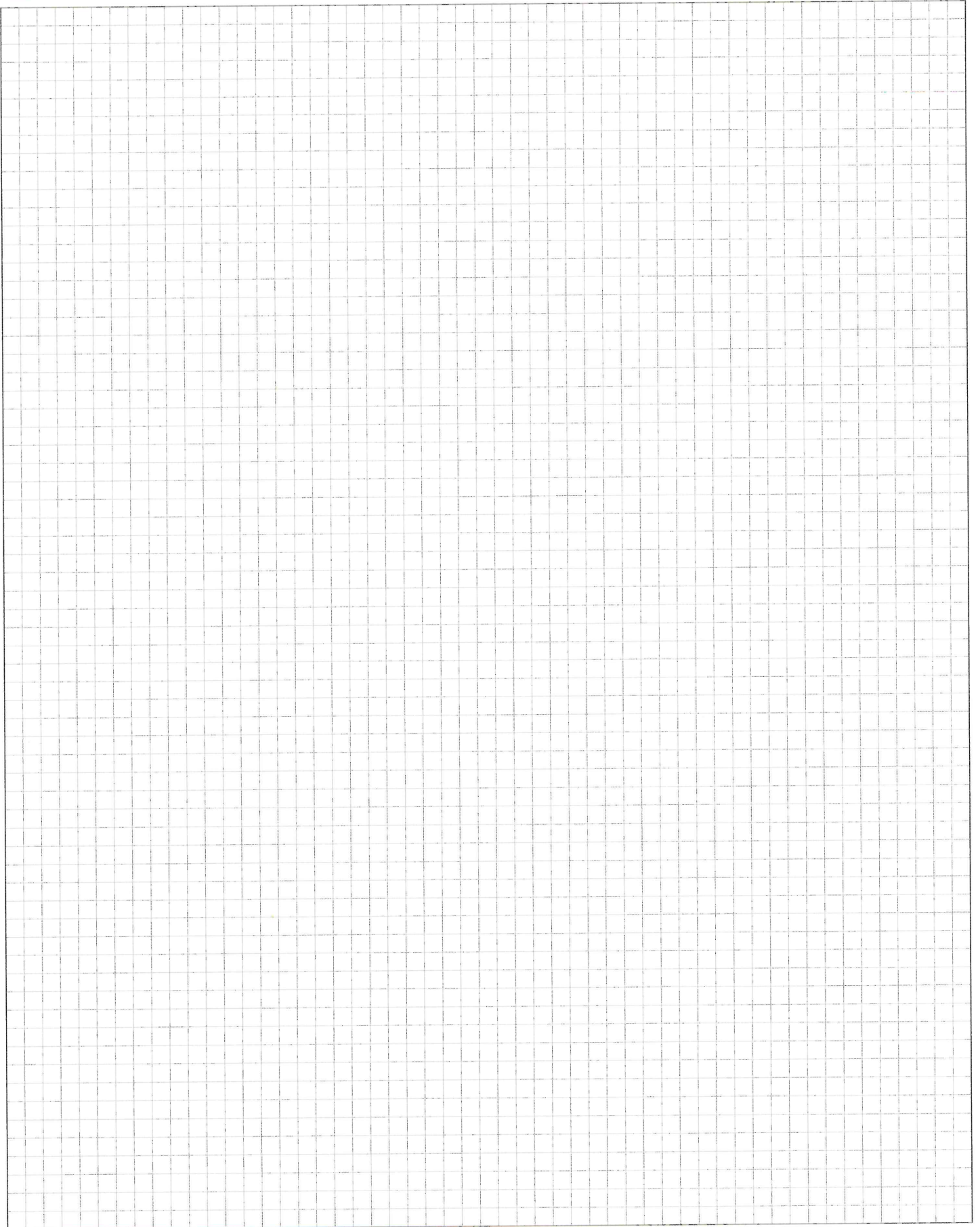
25	26	27	28	29	30	31	32	33	34	35	36
B	A	E	C	C	E	A	E	C	E	A	D



NOTES:



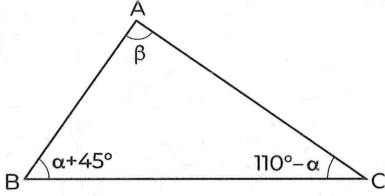
 **NOTES:**



ANGLE OF TRIANGLE

ÜÇGENDE AÇI

1.



ABC üçgen (triangle)

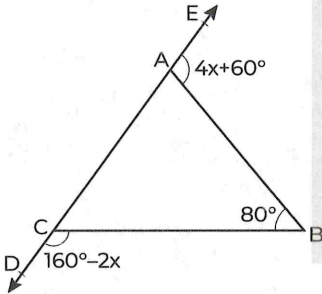
$$m(\widehat{ABC}) = \alpha + 45^\circ, \quad m(\widehat{ACB}) = 110^\circ - \alpha$$

$$m(\widehat{BAC}) = \beta$$

$$\Rightarrow \beta = ?$$

- A) 10 B) 15 C) 20 D) 25 E) 30

2.



ABC üçgen (triangle)

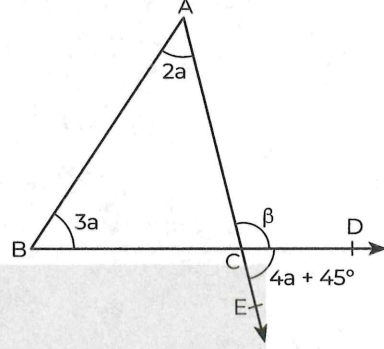
$$m(\widehat{EAB}) = 4x + 60^\circ, \quad m(\widehat{DCB}) = 160^\circ - 2x$$

$$m(\widehat{ABC}) = 80^\circ$$

$$\Rightarrow m(\widehat{DAB}) = ?$$

- A) 20 B) 30 C) 40 D) 50 E) 60

3.



$$m(\widehat{BAE}) = 2a, \quad m(\widehat{ABD}) = 3a$$

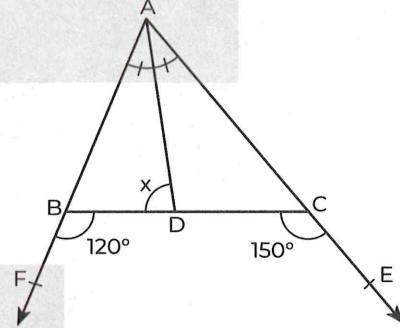
$$m(\widehat{DCE}) = 4a + 45^\circ, \quad m(\widehat{ACD}) = \beta$$

$$\Rightarrow \beta = ?$$

- A) 85 B) 70 C) 75 D) 70 E) 60

PUZA ACADEMY

4.

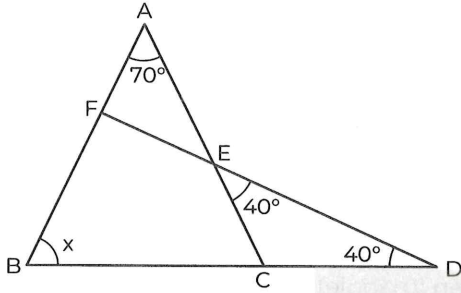


$$m(\widehat{BCE}) = 150^\circ, \quad m(\widehat{FBC}) = 120^\circ$$

$$m(\widehat{FAD}) = m(\widehat{DAE}), \quad m(\widehat{ADB}) = x \Rightarrow x = ?$$

- A) 60 B) 75 C) 80 D) 90 E) 95

5.



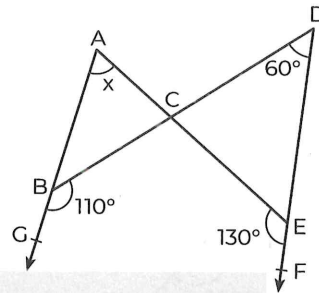
$$m(\widehat{CED}) = m(\widehat{FDB}) = 40^\circ, m(\widehat{BAC}) = 70^\circ$$

$$m(\widehat{ABD}) = x$$

$$\Rightarrow x = ?$$

- A) 42 B) 40 C) 35 D) 30 E) 28

7.



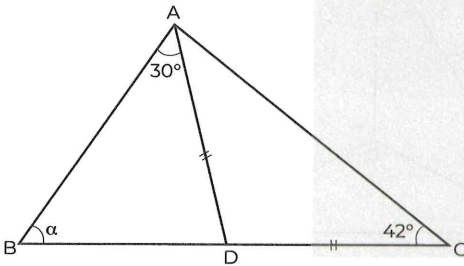
$$m(\widehat{GBD}) = 110^\circ, m(\widehat{FEA}) = 130^\circ$$

$$m(\widehat{BDF}) = 60^\circ, m(\widehat{BAC}) = x$$

$$\Rightarrow x = ?$$

- A) 20 B) 30 C) 40 D) 50 E) 60

6.



ABC üçgen (triangle)

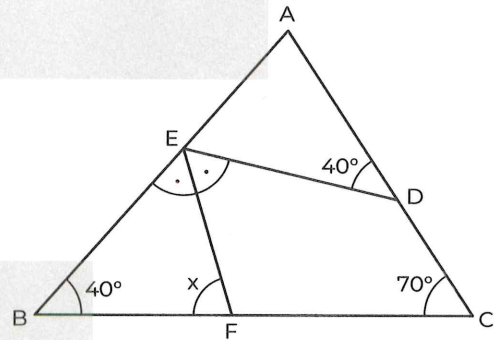
$$|AD| = |DC|, m(\widehat{BAD}) = 30^\circ, m(\widehat{ACB}) = 42^\circ$$

$$m(\widehat{ABC}) = \alpha$$

$$\Rightarrow \alpha = ?$$

- A) 46 B) 52 C) 66 D) 72 E) 84

8.



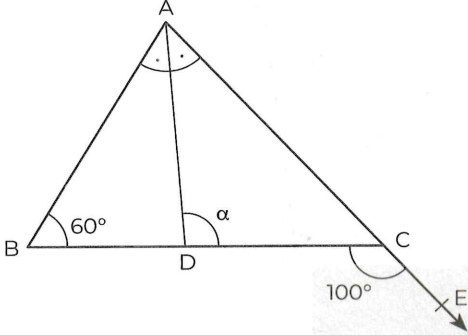
$$m(\widehat{BEF}) = m(\widehat{FED}), m(\widehat{ABC}) = m(\widehat{ADE}) = 40^\circ$$

$$m(\widehat{ACB}) = 70^\circ, m(\widehat{EFB}) = x$$

$$\Rightarrow x = ?$$

- A) 85 B) 70 C) 65 D) 60 E) 55

9.

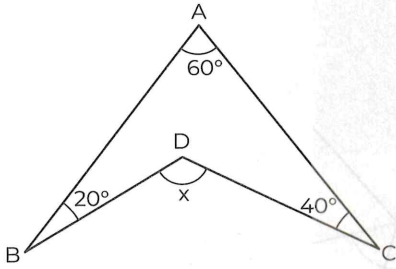


$$m(\widehat{BAD}) = m(\widehat{DAE}), m(\widehat{ABC}) = 60^\circ$$

$$m(\widehat{BCE}) = 100^\circ, m(\widehat{ADC}) = \alpha \Rightarrow \alpha = ?$$

- A) 110 B) 100 C) 90 D) 80 E) 70

10.



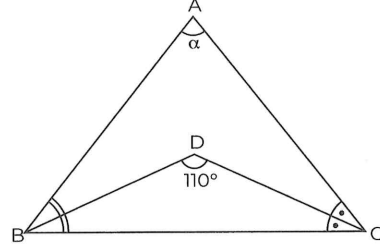
$$m(\widehat{BAC}) = 60^\circ, m(\widehat{ABD}) = 20^\circ$$

$$m(\widehat{ACD}) = 40^\circ, m(\widehat{BDC}) = x$$

$$\Rightarrow x = ?$$

- A) 120 B) 105 C) 100 D) 95 E) 90

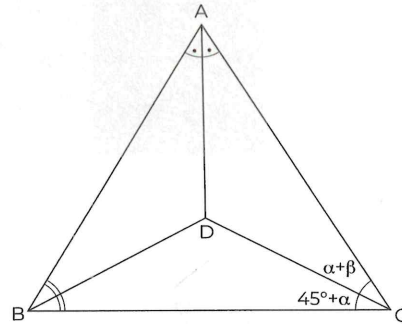
11.



ABC üçgen (triangle), $m(\widehat{ABD}) = m(\widehat{DBC})$
 $m(\widehat{ACD}) = m(\widehat{DCB}), m(\widehat{BDC}) = 110^\circ$
 $m(\widehat{BAC}) = \alpha$
 $\Rightarrow \alpha = ?$

- A) 20 B) 30 C) 40 D) 50 E) 60

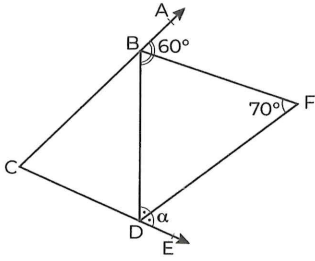
12.



ABC üçgen (triangle)
 $m(\widehat{BAD}) = m(\widehat{DAC}), m(\widehat{ABD}) = m(\widehat{DBC})$
 $m(\widehat{ACD}) = \alpha + \beta, m(\widehat{DCB}) = 45^\circ + \alpha$
 $\Rightarrow \beta = ?$

- A) 20 B) 30 C) 35 D) 45 E) 50

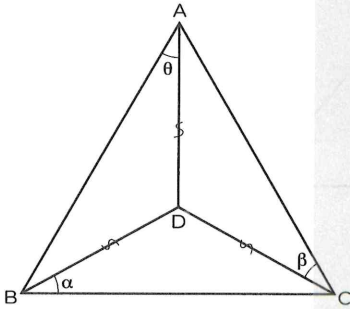
13.



BCD üçgen (triangle), $m(\widehat{ABF}) = m(\widehat{FBD})$
 $m(\widehat{BDF}) = m(\widehat{FDE})$, $m(\widehat{ABF}) = 60^\circ$,
 $m(\widehat{BFD}) = 70^\circ$, $m(\widehat{FDE}) = \alpha$
 $\Rightarrow \alpha = ?$

A) 30 B) 40 C) 50 D) 60 E) 70

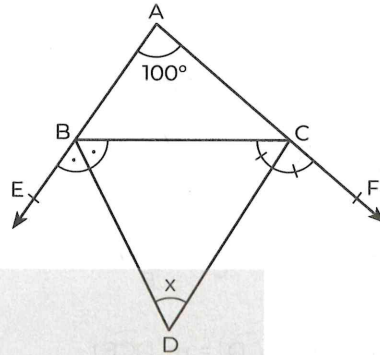
14.



ABC üçgen (triangle)
 $|AD| = |DC| = |DB|$, $m(\widehat{DBC}) = \alpha$
 $m(\widehat{DCA}) = \beta$, $m(\widehat{DAB}) = \theta$
 $\Rightarrow \alpha + \beta + \theta = ?$

A) 60 B) 70 C) 80 D) 90 E) 100

15.

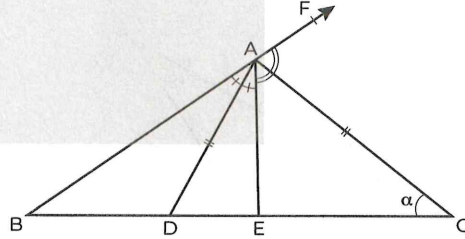


$m(\widehat{EBD}) = m(\widehat{DBC})$, $m(\widehat{BCD}) = m(\widehat{DCF})$
 $m(\widehat{BAC}) = 100^\circ$, $m(\widehat{BDC}) = x \Rightarrow x = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

PUZA ACADEMY

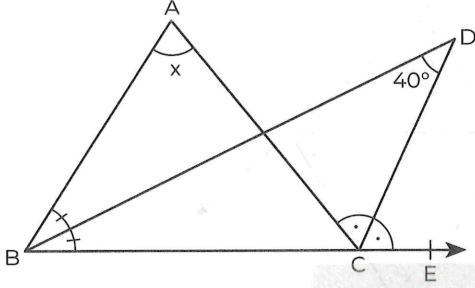
16.



ABC üçgen (triangle), B, A, F doğrusal (linear)
 $|AD| = |AC|$, $m(\widehat{FAC}) = m(\widehat{CAE})$,
 $m(\widehat{EAD}) = m(\widehat{DAB})$, $m(\widehat{ACB}) = \alpha$
 $\Rightarrow \alpha = ?$

A) 20 B) 30 C) 45 D) 55 E) 60

17.

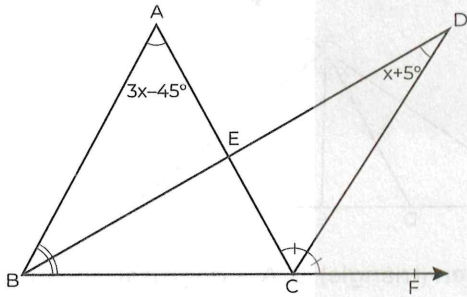


$$m(\widehat{ABD}) = m(\widehat{DBE}), m(\widehat{ACD}) = m(\widehat{DCE})$$

$$m(\widehat{BDC}) = 40^\circ, m(\widehat{BAC}) = x \Rightarrow x = ?$$

- A) 80 B) 70 C) 60 D) 40 E) 20

18.



ABC üçgen (triangle), B, C, F doğrusal (linear)

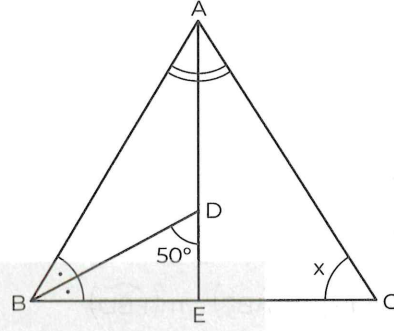
$$m(\widehat{ABD}) = m(\widehat{DBE}), m(\widehat{ACD}) = m(\widehat{DCF})$$

$$m(\widehat{BAC}) = 3x - 45^\circ, m(\widehat{BDC}) = x + 5^\circ$$

$$\Rightarrow x = ?$$

- A) 30 B) 35 C) 40 D) 50 E) 55

19.

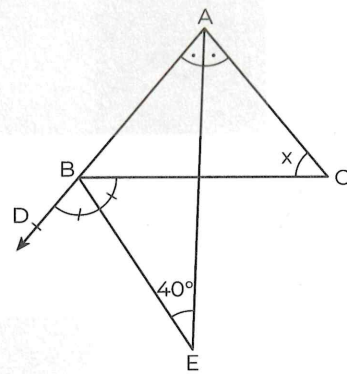


$$m(\widehat{BAE}) = m(\widehat{EAC}), m(\widehat{ABD}) = m(\widehat{DBC})$$

$$m(\widehat{BDE}) = 50^\circ, m(\widehat{ACB}) = x \Rightarrow x = ?$$

- A) 90 B) 80 C) 70 D) 60 E) 50

20.

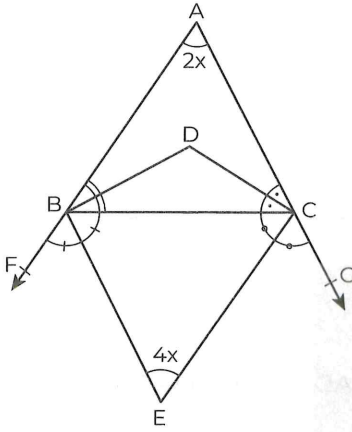


$$m(\widehat{DAE}) = m(\widehat{EAC}), m(\widehat{DBE}) = m(\widehat{EBC})$$

$$m(\widehat{BEA}) = 40^\circ, m(\widehat{BCA}) = x \Rightarrow x = ?$$

- A) 40 B) 50 C) 60 D) 70 E) 80

21.



ABC üçgen (triangle),

$$m(\widehat{ABD}) = m(\widehat{DBC}), m(\widehat{CBE}) = m(\widehat{EBF})$$

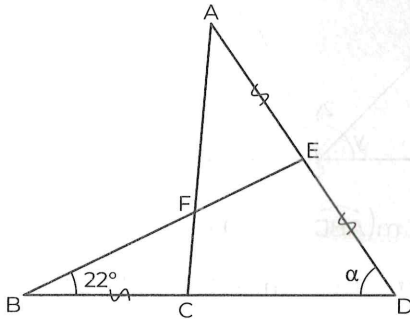
$$m(\widehat{ACD}) = m(\widehat{DCB}), m(\widehat{BCE}) = m(\widehat{ECG})$$

$$m(\widehat{FAG}) = 2x, m(\widehat{BEC}) = 4x$$

$$\Rightarrow x = ?$$

- A) 12 B) 14 C) 16 D) 18 E) 22

22.



ACD, BED üçgen (triangle)

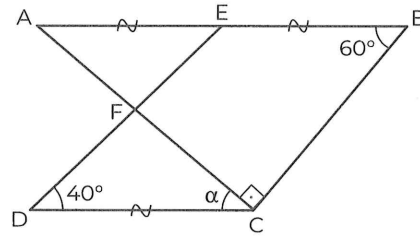
$$[AC] \perp [BD], |AE| = |ED| = |BC|$$

$$m(\widehat{EBD}) = 22^\circ, m(\widehat{ADB}) = \alpha$$

$$\Rightarrow \alpha = ?$$

- A) 22 B) 32 C) 36 D) 42 E) 44

23.



ACB dik üçgen (right triangle)

$$|AE| = |EB| = |DC|$$

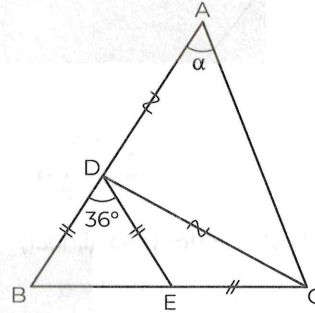
$$m(\widehat{EDC}) = 40^\circ, m(\widehat{ABC}) = 60^\circ, m(\widehat{ACD}) = \alpha$$

$$\Rightarrow \alpha = ?$$

- A) 45 B) 65 C) 68 D) 70 E) 75

PUZA ACADEMY

24.



ABC üçgen (triangle)

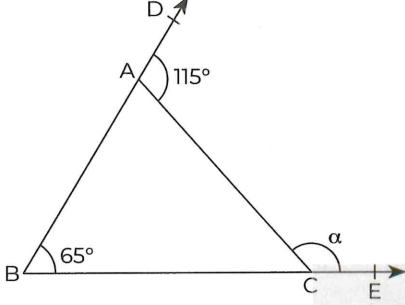
$$|BD| = |DE| = |EC|, |AD| = |DC|$$

$$m(\widehat{BDE}) = 36^\circ, m(\widehat{BAC}) = \alpha$$

$$\Rightarrow \alpha = ?$$

- A) 32 B) 36 C) 40 D) 42 E) 46

1.

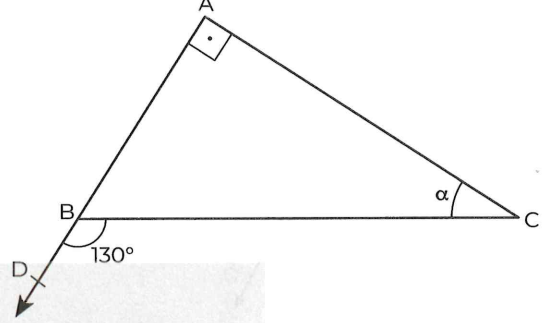


$$m(\widehat{DAC}) = 115^\circ, m(\widehat{DBE}) = 65^\circ, m(\widehat{ACE}) = \alpha$$

$$\Rightarrow \alpha = ?$$

- A) 130 B) 125 C) 120 D) 115 E) 110

3.

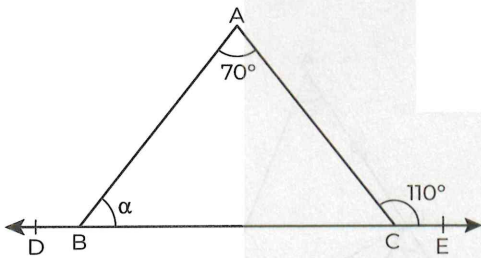


$$m(\widehat{DBC}) = 130^\circ, [AD \perp [AC], m(\widehat{ACB}) = \alpha$$

$$\Rightarrow \alpha = ?$$

- A) 50 B) 40 C) 35 D) 30 E) 25

2.



ABC üçgen (triangle), D, B, C, E doğrusal (linear)

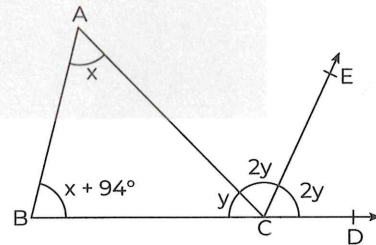
$$m(\widehat{BAC}) = 70^\circ, m(\widehat{ACE}) = 110^\circ, m(\widehat{ABE}) = \alpha$$

$$\Rightarrow \alpha = ?$$

- A) 20 B) 30 C) 40 D) 50 E) 60

PUZA ACADEMY

4.



$$m(\widehat{BAC}) = x, m(\widehat{ABD}) = x + 94^\circ$$

$$2 \cdot m(\widehat{ACB}) = m(\widehat{ACE}), m(\widehat{ACE}) = m(\widehat{ECD})$$

$$\Rightarrow y - x = ?$$

- A) 11 B) 12 C) 13 D) 14 E) 15