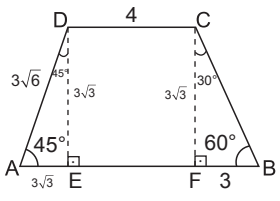
1.



DEA dik üçgeninde (45° – 45° – 90° özelliğinden

$|DE| \cdot \sqrt{2} = 3\sqrt{6} \Rightarrow |DE| = 3\sqrt{3}$

$|DE| = |CF| = 3\sqrt{3}$

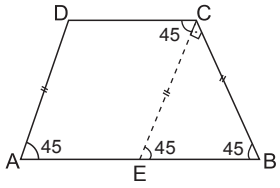
CFB dik üçgeninde (30° – 60° – 90° özelliğinden

$|FB| \cdot \sqrt{3} = 3\sqrt{3} \Rightarrow |FB| = 3$

ise $|AB| = 7 + 3\sqrt{3}$ dir.

CEVAP: E

2.



ABCD ikizkenar yamuk olduğundan

m $(\widehat{DAB})$ = m $(\widehat{CBA})$ = 45° [DA] paralel olacak şekilde [CE] çizelim |DA| = |CE| olur.

ACED parelel kenarında m $(\widehat{DCE})$ = 45° dir.

CEB üçgeninde m $(\widehat{ECB})$ = 90° olur.

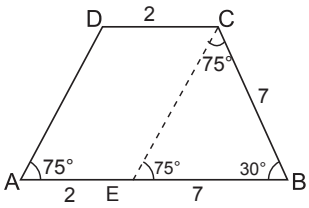
Buna göre,

m $(\widehat{BCD})$ = x = 90 + 45

= 135° dir.

CEVAP: C

3.



[DA] // [CE] olacak şekilde [CE] çizelim.

m $(\widehat{CEB})$ = m $(\widehat{DAB})$ = 75° olur.

BCE üçgeninde

75 + 30 + m $(\widehat{ECB})$ = 180° $\Rightarrow$ m $(\widehat{ECB})$ = 75° dir.

Buna göre,

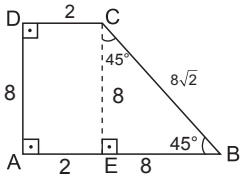
|BC| = |EB| = 7 cm dir. AECD paralel kenarından

|DC = |EA| = 2 cm olduğundan

|AB| = x = 9 cm dir.

CEVAP: D

4.



[CE] $\perp$ [AB] olacak şekilde |CE| çizelim.

CEB dik üçgeninde (45° – 45° – 90° özelliğinden

$|DE| \cdot \sqrt{2} = 8\sqrt{2}$

ise $|DE| = |EB| = 8$ cm olur.

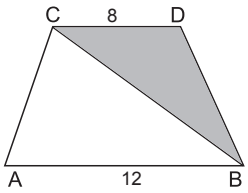
Buna göre,

$$A(ABCD) = \frac{(10+2)\cdot 8}{2} = \frac{12\cdot 8}{2}$$

$= 48$ cm^2 dir.

CEVAP: D

5.

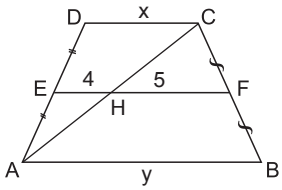


$$\frac{A(\overset{\Delta}{DCB})}{A(\overset{\Delta}{ADB})} = \frac{|DC|}{|AB|} \Rightarrow \frac{36}{A(\overset{\Delta}{ADB})} = \frac{\cancel{8}^{\,2}}{\cancel{12}_{\,3}}$$

$$A(\overset{\Delta}{ADB}) = 54 \text{ cm}^2 \text{ dir.}$$

CEVAP: B

6.



[EF] orta taban ise |ED| = |EA|

|CF| = |FB|

ADC üçgeninde, |DC| = 2|EH|

= 2 . 4 = 8 cm

ABC üçgeninde, |AB| = 2 . |HF|

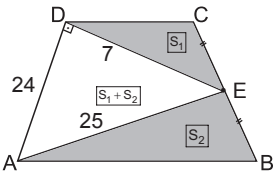
= 2 . 5 = 10 cm

Buna göre, y – x = 10 – 8

= 2 cm dir.

CEVAP: B

7.



ADE dik üçgeninde

$7^2 + |DA|^2 = 25^2 \Rightarrow 49 + |DA|^2 = 625$

$|DA|^2 = 576 \Rightarrow |DA| = 24$ cm dir.

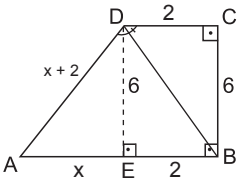
$$\text{Taralı alan} = A(\overset{\Delta}{DAE}) = \frac{7 \cdot 24}{2}$$

$$= 7 \cdot 12$$

$$= 84 \text{ cm}^2 \text{ dir.}$$

CEVAP: E

8.



[DC] // [AB] olduğundan

m (CDB) = m (DBA) $\Rightarrow$ |DA| = |AB|

|AE| = x ise |AD| = x + 2 olur.

DAE dik üçgende pisagor bağıntısından

$$(x+2)^2 = x^2 + 6^2$$

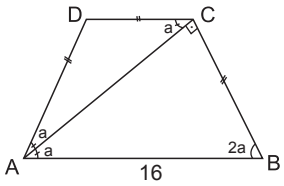
$$\cancel{x^2} + 4x + 4 = \cancel{x^2} + 36 \Rightarrow 4x = 32 \Rightarrow x = 8$$

$$\text{Buna göre, } A(ABCD) = \frac{(10+2) \cdot 6}{2}$$

$$= 36 \text{ cm}^2 \text{ dir.}$$

CEVAP: B

9.



ABCD ikizkenar yamuk ise

$m(\widehat{DAB}) = m(\widehat{CBA}) = 2a$ [DC] // [AB] olduğundan

$m(\widehat{DCA}) = m(\widehat{CAB}) = a$ dır.

ABC dik üçgeninde $a + 2a + 90 = 180$

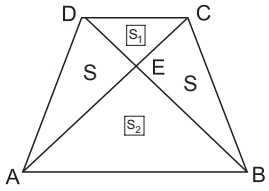
$$3a = 90 \Rightarrow a = 30^o,\ |BC| = \frac{|AB|}{2}$$

$$= \frac{16}{2} = 8 \text{ cm}$$

olduğuna göre $|DC| = x = 8$ cm dir.

CEVAP: D

10.



ABCD yamuğunda $A(\overset{\Delta}{DEA}) = A(\overset{\Delta}{CEB})$

$$S^2 = S_1 \cdot S_2 \Rightarrow S_2 = 9 \cdot 16$$

$$S_2 = 144$$

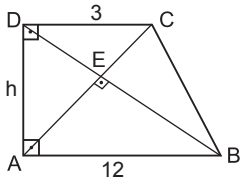
$$S = 12 \text{ cm}^2 \text{ olur.}$$

$$A(ABCD) = 12 + 12 + 9 + 16$$

$$= 49 \text{ cm}^2 \text{ dir.}$$

CEVAP: B

11.



Dik yamukta köşegenler dik kesişirse

$h^2 = 3.12$

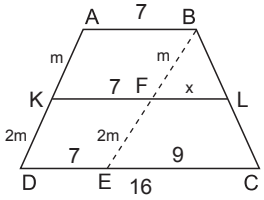
$h = 6$ dır.

$$A(ABCD) = \frac{(12+3)\cdot 6}{2} = 15 \cdot 3$$

$$= 45 \text{ cm}^2$$

CEVAP: D

12.



BEC üçgeninde [FL] // [EC] olduğundan

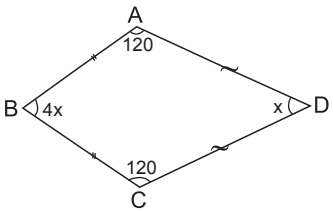
$\overset{\Delta}{BFL} \sim \overset{\Delta}{BEC}$ den

$$\frac{\cancel{m}}{3\cancel{m}} = \frac{x}{9} \Rightarrow x = 3 \text{ dir.}$$

$|KL| = 3 + 7 = 10$ cm dir.

CEVAP: C

13.



ABCD deltoidinde m $(\widehat{BAD})$ = m $(\widehat{BCD})$ = 120° dir.

m $(\widehat{ABC})$ = 4 . m $(\widehat{ADC})$ ise m $(\widehat{ADC})$ = x, m $(\widehat{ABC})$ = 4x dir.

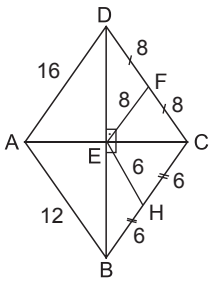
x + 4x + 240 = 360

5x + 240 = 360

5x = 120 $\Rightarrow$ x = 24° dir.

CEVAP: C

14.



ABCD deltoid ise [AC] $\perp$ [BD], DEC dik üçgeninde

|FC| = |FD| = |EF| = 8 cm

BEC dik üçgeninde |EB| = |HC| = |EH| = 6 cm

ABCD deltoid olduğundan;

|DC| = |AD| = 16 ve |AB| = |BC| = 12 cm olduğundan

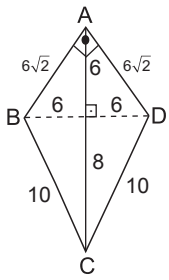
Çevre (ABCD) = 2 . 16 + 2 . 12

= 32 + 24

= 56 cm dir.

CEVAP: C

15.



[BD] çizildiğinde,

[BD] $\perp$ [AC] olur.

ABD dik üçgeninde,

$|BD| = |AD| \cdot \sqrt{2}$

$|BD| = 6\sqrt{2} \cdot \sqrt{2}$

$= 12$ cm olur.

ECD dik üçgeninde,

pisagor bağıntısından $6^2 + |EC|^2 = 10^2$

$36 + |EC|^2 = 100$

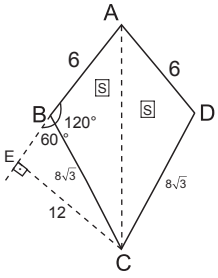
$|EC|^2 = 64$

$|EC| = 8$ cm

|AC| = 8 + 6 = 14 cm dir.

CEVAP: C

16.



ABCD deltoid olduğundan |AD| = |AB| = 6

ABC üçgenine dışardan bir dikme indirilirse,

m $(\widehat{EBC})$ = 60° olur.

CEB dik üçgeninde (30° – 60° – 90°)özelliğinden

$$|CE| = |BC| \cdot \frac{\sqrt{3}}{2}$$

$$|EC| = \frac{8\sqrt{3} \cdot \sqrt{3}}{2} = 12 \text{ cm}$$

$$A\left(\overset{\Delta}{ABC}\right) = \frac{6 \cdot 12}{2} = 36 \text{ cm}$$

olduğuna göre,

A (ABCD) = 36 . 2 = 72 cm^2 dir.

CEVAP: E