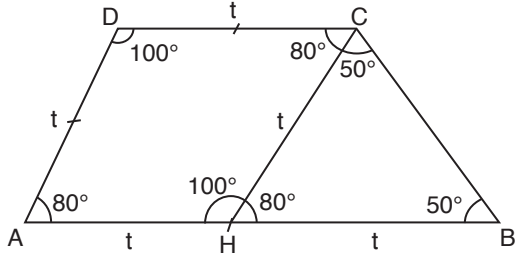


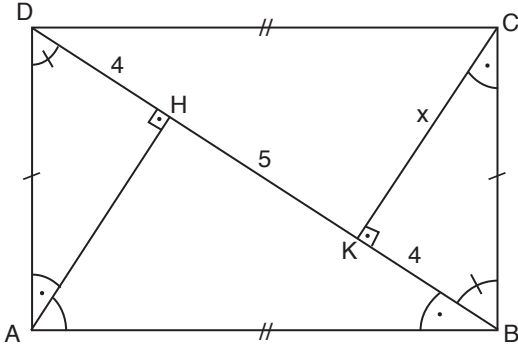
1.



$|DA| \parallel |CH|$  olacak şekilde  $|CH|$  çizilirse  $\widehat{D} = \widehat{H} = 100^\circ$   
ve  $s(\widehat{CHB}) = 80^\circ$  olur. HCB üçgeni ikizkenar olup  
 $s(\widehat{HCB}) = s(\widehat{HBC}) = 50^\circ$  olur.  
U kuralından  $s(\widehat{DCH}) = 80^\circ$  olur.  
 $s(\widehat{DCB}) = 80^\circ + 50^\circ = 130^\circ$  dir.

Cevap: A

2.



$\widehat{HDA}$  ile  $\widehat{CKB}$  eş üçgenlerdir.

O halde  $|KB| = |DH| = 4$  olur.

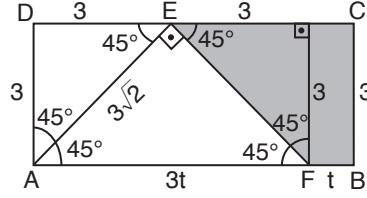
Öklid teoreminden

$$x^2 = 4.9$$

$$x = 6 \text{ olur.}$$

Cevap: C

3.



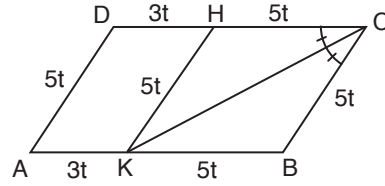
$$3t = 6$$

$$t = 2$$

$$\text{Alan} = \frac{3.3}{2} + 3.2 = \frac{9}{2} + 6 = \frac{21}{2}$$

Cevap: C

4.



$|KH| \parallel |BC|$  şeklinde  $|KH|$  çizilir.

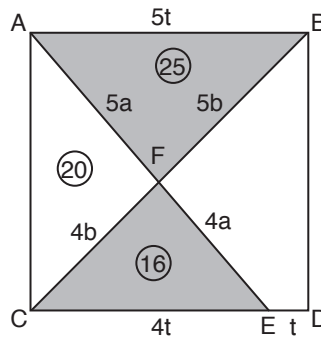
Çevresi  $26t$  olup  $26t = 78$

$$t = 3 \text{ olur.}$$

$$|DC| = 8t = 8.3 \\ = 24$$

Cevap: B

5.



Taralı bölgeye kelebek benzerliği kullanılırsa

$$\left(\frac{|CE|}{|AB|}\right)^2 = \frac{A(CFE)}{A(AFB)}$$

$$\left(\frac{4t}{5t}\right)^2 = \frac{16}{A(AFB)}$$

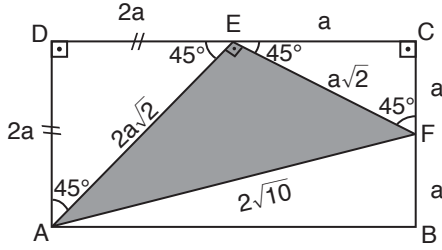
$$A(ABF) = 25 \text{ olur.}$$

O halde  $A(\widehat{DFC}) = 20$  olur.

$$\text{Alan} = (20 + 25).2 = 90$$

Cevap: B

6.



ADE ikizkenar üçgen

$$|DE| = |AD| = 2a \text{ ise}$$

$$|AE| = 2a\sqrt{2}$$

ECF ikizkenar olup

45 – 45 – 90 üçgeninden

$$|EF| = a\sqrt{2}$$

EAF üçgeninden pisagor yapılırsa

$$(2\sqrt{10})^2 = (2a\sqrt{2})^2 + (a\sqrt{2})^2$$

$$4a = 8a^2 + 2a^2$$

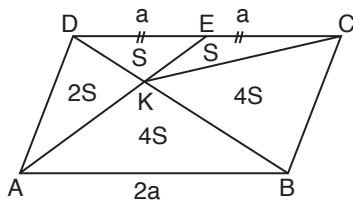
$$4a = 10a^2$$

$$4 = a^2$$

$$\boxed{2 = a}$$

$$A(EAF) = \frac{2a\sqrt{2} \cdot a\sqrt{2}}{2} = 2a^2 = 2 \cdot 2^2 = 8$$

7.



$[AB] \parallel [DC]$

$|AD| \parallel |BC|$

$|DE| = |EC|$

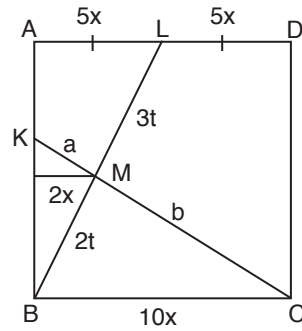
$$A(ABCD) = 48 \text{ } b^2 = 125 \quad \boxed{S = 4}$$

$$4S = 4 \cdot 4 = 16$$

Cevap: A

Cevap: D

8.



$$\frac{a}{a+b} = \frac{2}{10} = \frac{1}{5}$$

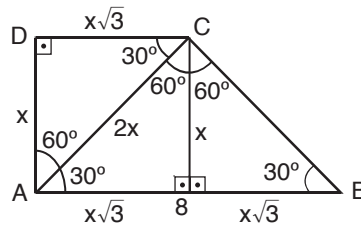
$$5a = a + b$$

$$4a = b$$

$$\frac{b}{a} = 4$$

Cevap: A

9.



$AB \parallel DC$

$AD \perp DC$

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

$$m(\widehat{ACB}) = 30^\circ$$

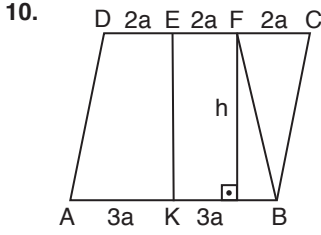
$$|AB| = 8$$

$$2x\sqrt{3} = 8$$

$$x = \frac{8}{2\sqrt{3}} = \frac{4}{\sqrt{3}} = \frac{4\sqrt{3}}{3}$$

$$\begin{aligned} \text{Alan} &= \frac{(x\sqrt{3} + 8) \cdot x}{2} = \frac{(4 + 8) \cdot \frac{4\sqrt{3}}{3}}{2} \\ &= 8\sqrt{3} \end{aligned}$$

Cevap: D

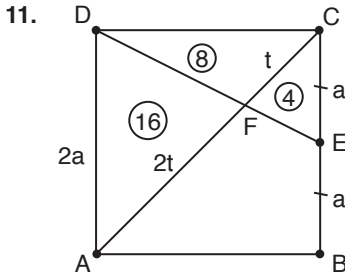


$$\frac{h(5a)}{2} = 20$$

$$\boxed{h \cdot a = 8}$$

$$\frac{9 \cdot 12a}{2} = \boxed{48}$$

Cevap: E



$$|CE| = a \text{ ise}$$

$$|DA| = 2a \text{ olur.}$$

Kelebek benzerliğinden

$$\frac{a}{2a} = \frac{1}{2} \text{ olur.}$$

$$\left(\frac{1}{2}\right)^2 = \frac{1}{4} = \frac{A(\widehat{CFE})}{A(\widehat{DFA})} = \frac{4}{A(\widehat{DFA})}$$

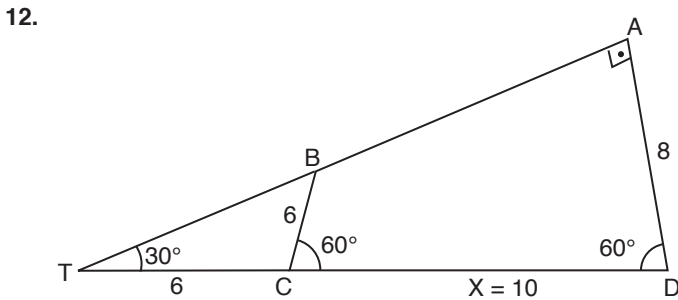
$$A(\widehat{DFA}) = 16$$

$$|AF| = 2 \cdot |CF| \text{ olduğundan}$$

$$A(\widehat{DFC}) = 8$$

$$\text{O halde } A(\widehat{ABCD}) = 2 \cdot 24 = 48$$

Cevap: E

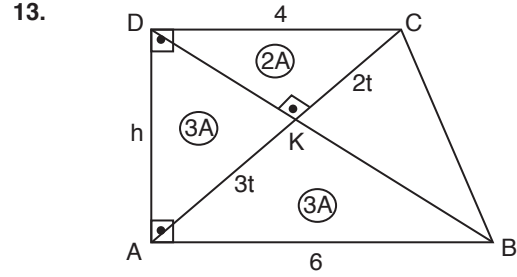


ATD üçgeni 30 – 60 – 90 üçgeni olduğundan

$$|TD| = 16 \text{ olmalı}$$

$$|CD| = 10 \text{ olur.}$$

Cevap: B



Kelebek benzerliğinden  $\frac{4}{6} = \frac{2}{3}$  olup

$$A(\widehat{DKC}) = 2A$$

$$A(\widehat{AKB}) = 3A$$

olur.

$$|KC| = 2t \left. \begin{array}{l} \\ \\ \end{array} \right\} A(\widehat{DAK}) = 3A$$

$$|KA| = 3t \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{ olur.}$$

ABC üçgeninden öklid yaparsak

$$\left. \begin{array}{l} h^2 = 3t \cdot 5t \Rightarrow h^2 = 15t^2 \\ 4^2 = 2t \cdot 5t \Rightarrow 16 = 10t^2 \end{array} \right\} \frac{h^2}{16} = \frac{15}{10}$$

$$\frac{h^2}{16} = \frac{3}{2}$$

$$h^2 = 24$$

$$\boxed{h = 2\sqrt{6}}$$

$$5A = \frac{h \cdot 4}{2}$$

$$5A = \frac{2\sqrt{6} \cdot 4}{2}$$

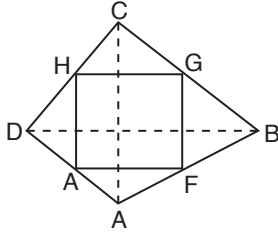
$$A = \frac{4\sqrt{6}}{5}$$

$$A(\widehat{ABCD}) = \frac{(4+6)2\sqrt{6}}{2} = 10\sqrt{6} \left. \begin{array}{l} \\ \\ \end{array} \right\} \frac{10\sqrt{6}}{8\sqrt{6}} = \frac{50}{8}$$

$$A(\widehat{DKC}) = 2A = 2 \cdot \frac{4\sqrt{6}}{5} = \frac{8\sqrt{6}}{5} \left. \begin{array}{l} \\ \\ \end{array} \right\} = \frac{25}{4}$$

Cevap: D

14.

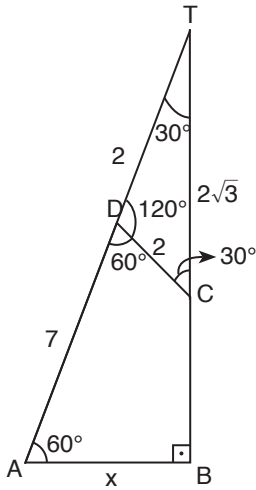


İçerideki dörtgenin çevresi köşegenler toplamıdır.

$$\text{Ç}(EFGH) = 13 + 17 = 30$$

Cevap: D

15.



TDC üçgeni  $120 - 30 - 30$  üçgenidir.

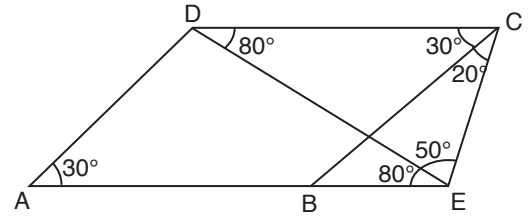
TAB üçgeni  $30 - 60 - 90$  üçgenidir.

O halde

$$x = \frac{9}{2} \text{ olur.}$$

Cevap: C

16.



DC ile AB paralel olup  $m(\widehat{DEA}) = 80^\circ$  ve

$|DC| = |DE|$  olup ikizkenar üçgen vardır.

$m(\widehat{DCE}) = m(\widehat{DEC}) = 50$  olur.

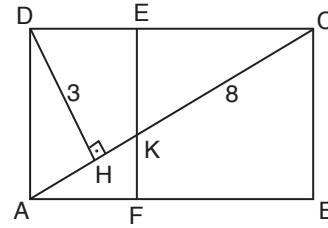
$m(\widehat{DCB}) = 30$  olur.

$$x = 30$$

Çünkü ABCD paralelkenar ve karşılıklı açıları birbirine eşittir.

Cevap: B

17.



$$64 = 16x^2 + 16a^2$$

$$h = t^2 + a^2$$

$$|AK| = 2$$

$$3^2 = n \cdot (10 - n)$$

$$\boxed{n = 1}$$

$$(5a)^2 = 3^2 + n^2$$

$$25a^2 = 10$$

$$a^2 = \frac{2}{5} \Rightarrow a = \sqrt{\frac{2}{5}}$$

$$\Rightarrow 4 = t^2 + \frac{2}{5}$$

$$4 - \frac{2}{5} = t^2$$

$$\frac{18}{5} = t^2$$

$$\frac{3\sqrt{2}}{\sqrt{5}} = t$$

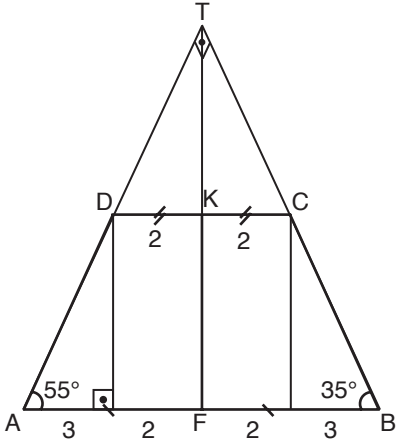
$$\text{Alan} = 4t \cdot 5a$$

$$= 20 \cdot 3 \cdot \frac{2}{5}$$

$$= 24$$

Cevap: C

18.



D ve C uzatılarak üçgen elde edildiğinde  $\hat{T} = 90^\circ$  olur.

Muhteşem üçlüden

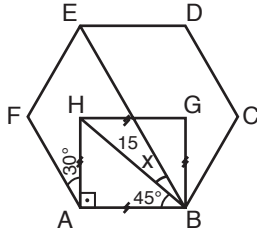
$$|TK| = 2 \text{ ve}$$

$$|TF| = 5 \text{ olup}$$

$$|KF| = 3 \text{ olur.}$$

Cevap: A

19.



$$m(\widehat{FAH}) = 30$$

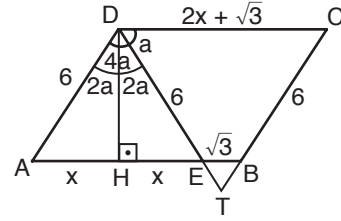
$$m(\widehat{HBA}) = 45$$

$$x + 45 = 60$$

$$x = 5$$

Cevap: C

20.



DAE ikizkenar üçgen olduğundan indirilen yükseklik açıortay ve kenarortay olur.

DC ile AB paralel olduğundan  $m(\widehat{DEA}) = a$

$$90 + 2a + a = 180$$

$$a = 30$$

DHE üçgeni 30 - 60 - 90 üçgeni olup

$$|HE| = 3\sqrt{3} = |AH|$$

$$\text{Paralelkenarın alanı } 3 \cdot 7\sqrt{3} = 21\sqrt{3}$$

Cevap: A