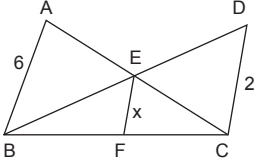


1.



$[AB] \parallel [EF] \parallel [DC]$ ise

$$\frac{1}{x} = \frac{1}{6} + \frac{1}{2}$$

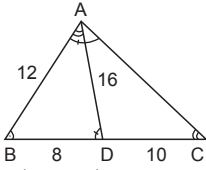
$$\frac{1}{x} = \frac{1}{6} + \frac{3}{6}$$

$$\frac{1}{x} = \frac{4}{6}$$

$$x = 1,5 \text{ cm dir.}$$

CEVAP: D

2.



$\hat{A}BD \sim \hat{C}BA$

olduğundan, $\frac{|AB|}{|CB|} = \frac{|AD|}{|CA|} = \frac{|BD|}{|BA|}$

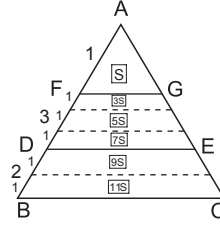
$$\Rightarrow \frac{12}{18} = \frac{16}{|AC|} = \frac{8}{12}$$

$$\Rightarrow \frac{1}{3} = \frac{8}{|AC|}$$

$$\Rightarrow |AC| = 24 \text{ cm}^2 \text{ dir.}$$

CEVAP: D

3.



Şekildeki gibi kenarlar birbirine paralel eş parçalara ayrılırsa Tales'e göre alanlar parçalanır.

Buna göre, $A(FDEG) = 15S$ olur.

$15S = 30 \Rightarrow B = 2 \text{ cm}^2$ olduğundan

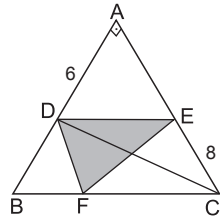
$$A(\hat{ABC}) = 36S$$

$$= 36 \cdot 2$$

$$= 72 \text{ cm}^2 \text{ dir.}$$

CEVAP: E

4.



F noktası C noktasına taşınırsa

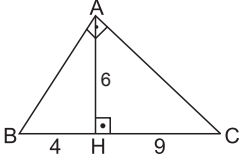
$$A(\hat{DEF}) = A(\hat{DEC}) = \frac{8 \cdot 6}{2}$$

$$= 24 \text{ cm}^2 \text{ bulunur.}$$

CEVAP: D



5.



ABC üçgeninde oklid bağıntısından

$$|AH|^2 = 4 \cdot 9 \Rightarrow |AH| = 6 \text{ cm}$$

$$A(\triangle ABC) = \frac{13 \cdot 6}{2} = \frac{|AB| \cdot |AC|}{2}$$

$$\Rightarrow |AB| \cdot |AC| = 78 \text{ cm dir.}$$

CEVAP: E

6. $(x + y + z) \cdot (y + z - x) = 120$ (iki kare farkından),

$$(y + z)^2 - x^2 = 120$$

$$y^2 + 2yz + z^2 - x^2 = 120 \quad (\text{pisagordan } y^2 + z^2 = x^2)$$

$$\begin{array}{c} \uparrow \qquad \qquad \uparrow \\ \qquad \qquad \qquad x^2 \end{array}$$

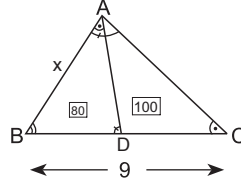
$$2yz + x^2 - x^2 = 120$$

$$2yz = 120 \Rightarrow y \cdot z = 60$$

$$A(\triangle ABC) = \frac{y \cdot z}{2} = \frac{60}{2} = 30 \text{ cm}^2 \text{ dir.}$$

CEVAP: D

7.



$\triangle ABC \sim \triangle DBA$ olduğundan

$$\frac{A(\triangle ABC)}{A(\triangle DBA)} = \left(\frac{9}{x}\right)^2$$

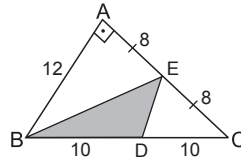
$$\frac{180}{80} = \left(\frac{9}{x}\right)^2$$

$$\frac{9}{4} = \left(\frac{9}{x}\right)^2$$

$$\frac{9}{x} = \frac{3}{2} \Rightarrow x = 6 \text{ br dir.}$$

CEVAP: A

8.



ABC dik üçgeninde pisagor bağıntısından

$$(20)^2 = (12)^2 + |AC|^2$$

$$400 = 144 + |AC|^2$$

$$256 = |AC|^2 \Rightarrow |AC| = 16 \text{ cm olur.}$$

$$A(\triangle BEC) = \frac{8 \cdot 12}{2} = 48 \text{ cm}^2$$

$$A(\triangle BED) = \frac{A(\triangle BEC)}{2}$$

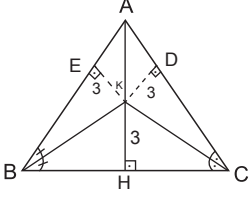
$$= \frac{48}{2}$$

$$= 24 \text{ cm}^2 \text{ dir.}$$

CEVAP: C



9.

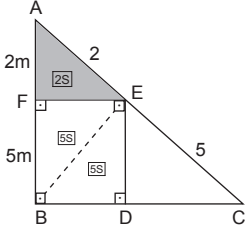


[BK] ve [CK] açıortay olduğundan
|KH| = |KD| = |KE| = 3 cm olur.

$$\begin{aligned} A(\triangle ABC) &= \frac{|AC| \cdot 3}{2} + \frac{|AB| \cdot 3}{2} + \frac{|BC| \cdot 3}{2} \\ &= \frac{\text{çevre} \cdot 3}{2} \\ &= \frac{3(|AC| + |AB| + |BC|)}{2} \\ &= \frac{3 \cdot 48}{2} \\ &= 3 \cdot 24 \\ &= 72 \text{ cm}^2 \text{ dir.} \end{aligned}$$

CEVAP: C

10.



$$\triangle AFE \sim \triangle ABC \Rightarrow \frac{|AF|}{|FB|} = \frac{2}{5}$$

$$\frac{A(\triangle AFE)}{A(\triangle FBE)} = \frac{2}{5} \text{ ise } A(\triangle AFE) = 2S, A(\triangle FBE) = 5S$$

$$A(\triangle FBE) = A(\triangle EBD) = 5S \text{ olur.}$$

$$\frac{A(\triangle ABE)}{A(\triangle EBC)} = \frac{2}{5} \Rightarrow \frac{7S}{A(\triangle EBC)} = \frac{2}{5}$$

$$\text{olduğundan} \Rightarrow A(\triangle EBC) = \frac{35S}{2}$$

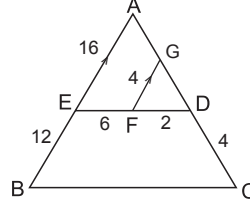
$$A(\triangle EDC) = \frac{35S}{2} - 5S = \frac{25S}{2}$$

$$2S = 16 \Rightarrow S = 8 \text{ cm}^2 \text{ ise}$$

$$A(\triangle EDC) = \frac{25S}{2} = \frac{25 \cdot 8}{2} = 100 \text{ cm}^2 \text{ dir.}$$

CEVAP: E

11.

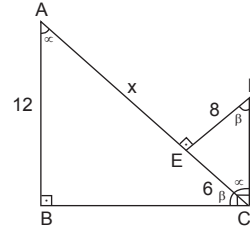


$$\begin{aligned} \triangle DFG \sim \triangle DAE \Rightarrow \frac{2}{8} &= \frac{4}{|AE|} \\ \Rightarrow |AE| &= 16 \text{ cm} \end{aligned}$$

$$\begin{aligned} \triangle AED \sim \triangle ABC \Rightarrow \frac{16}{28} &= \frac{8}{x} \\ \Rightarrow x &= 14 \text{ cm dir.} \end{aligned}$$

CEVAP: C

12.



Şekildeki gibi açılar yerleştirilirse
 $\triangle ABC \sim \triangle CED$ olur.

Buna göre,

$$\frac{12}{6} = \frac{6+x}{10}$$

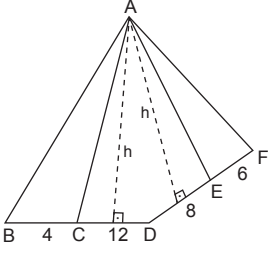
$$20 = 6 + x$$

$$x = 14 \text{ cm dir.}$$

CEVAP: A



13.

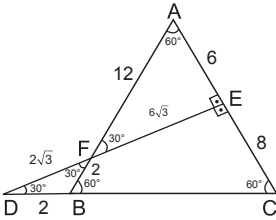


$$\begin{aligned} A(\triangle ABC) + A(\triangle AEF) &= \frac{4 \cdot h}{2} + \frac{6 \cdot h}{2} = 36 \\ \Rightarrow 5 \cdot h &= 36 \\ h &= \frac{36}{5} \end{aligned}$$

$$\begin{aligned} A(\triangle ACDE) &= \frac{12 \cdot h}{2} + \frac{8 \cdot h}{2} = 10 \cdot h \\ &= 10 \cdot \frac{36}{5} \\ &= 72 \text{ cm}^2 \text{ dir.} \end{aligned}$$

CEVAP: A

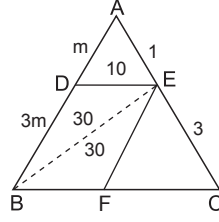
14.



$$\begin{aligned} \text{Şekle göre, } A(\triangle EDC) &= \frac{8\sqrt{3} \cdot 8}{2} \\ &= 32\sqrt{3} \text{ cm}^2 \text{ dir.} \end{aligned}$$

CEVAP: D

15.



$$\triangle ADE \sim \triangle ABC \text{ olduğundan } \frac{|AD|}{|DB|} = \frac{1}{3}$$

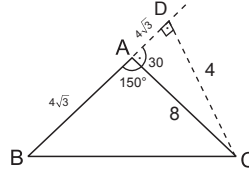
$$\frac{3m}{m} = \frac{30}{\Delta} \Rightarrow A(\triangle ADE) = 10$$

$$\frac{A(\triangle ADE)}{A(\triangle ABC)} = \left(\frac{1}{4}\right)^2 \Rightarrow \frac{10}{A(\triangle ABC)} = \frac{1}{16}$$

$$A(\triangle ABC) = 160 \text{ cm}^2 \text{ dir.}$$

CEVAP: D

16.



$$\triangle DAC \text{ de } m(\angle DAC) = 30^\circ \text{ ve}$$

$$|DC| = \frac{|AC|}{2} = \frac{8}{2} = 4 \text{ cm}$$

$$|AD| = |DC| \cdot \sqrt{3} = 4\sqrt{3} \text{ cm bulunur.}$$

$$\begin{aligned} \text{Buna göre, } A(\triangle ABC) &= \frac{4\sqrt{3} \cdot 4}{2} \\ &= 8\sqrt{3} \text{ cm}^2 \text{ dir.} \end{aligned}$$

CEVAP: C

