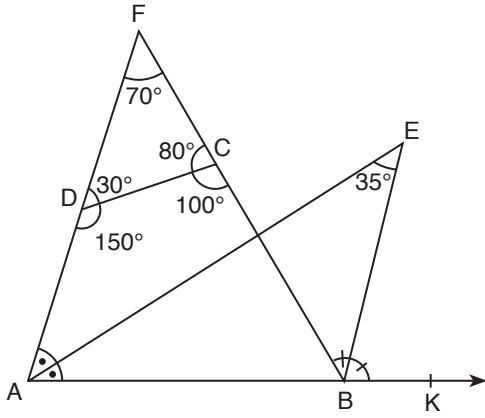


1.



D ve C uzatılır F'de birleştiriliyor.

$m(\widehat{ADC}) = 30$ "Doğru açı 180° olmalı"

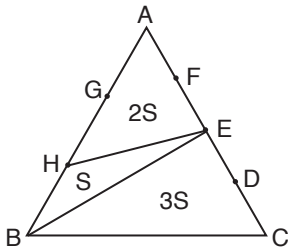
$m(\widehat{FCD}) = 80$ "Doğru açı 180° olmalı."

FDC üçgenin iç açıları toplamı 180° olup $\widehat{F} = 70$ olur.

$$\rightarrow m(\widehat{AEB}) = \frac{s(\widehat{AFB})}{2} = 35$$

Cevap: E

2.



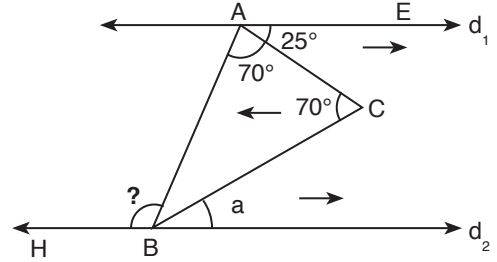
|HE| çizilirse yüksekliği aynı olan üçgenler çıkar. Bu üçgenlerin alanı taban ile orantılı olur.

O halde $A(\widehat{AHE}) = 2S$, $A(\widehat{HEB}) = S$, $A(\widehat{BEC}) = 3S$ olur.

$$\frac{A(\widehat{AHE})}{A(\widehat{HBCE})} = \frac{2S}{4S} = \frac{1}{2}$$

Cevap: A

3.



m kuralından

$$25 + a = 70$$

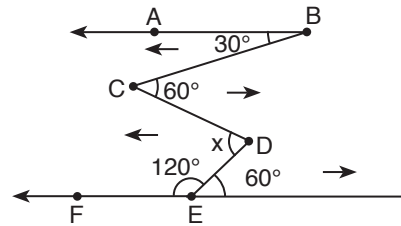
$$a = 45$$

z kuralından

$$? = 70 + 25 = 95$$

Cevap: E

4.



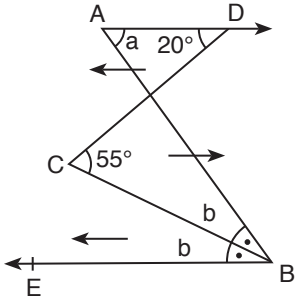
m kuralından

$$30 + x = 60 + 60$$

$$x = 90$$

Cevap: E

5.



m kuralından

$$20 + b = 55$$

$$b = 35$$

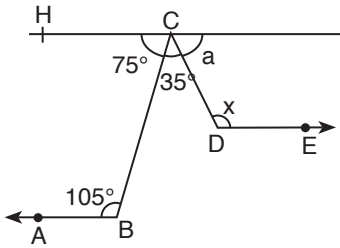
z kuralından

$$a = 2b$$

$$a = 2 \cdot 35 = 70$$

Cevap: A

6.



C'den geçen teğet çizilirse,

U kuralından $m(\widehat{HCB}) = 75^\circ$ olur.

$$75 + 35 + a = 180$$

$$110 + a = 180$$

$$a = 70$$

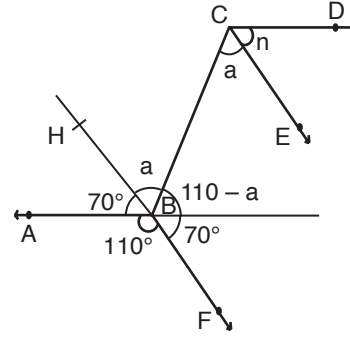
$$a + x = 180$$

$$70 + x = 180$$

$$x = 110$$

Cevap: D

7.



B'den geçen ve $|CE|$ ye teğet olan bir çizgi çekelim

$s(\widehat{HBC}) = a = s(\widehat{ECB})$ olur.

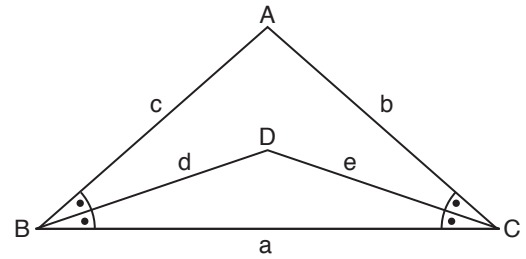
U kuralından

$$n + a + 110 - a = 180$$

$$n = 70 \text{ olur.}$$

Cevap: E

8.



$$b > c$$

$$a^2 > b^2 + c^2$$

$$a > b \text{ ve } a > c$$

$$a^2 > d^2 + e^2$$

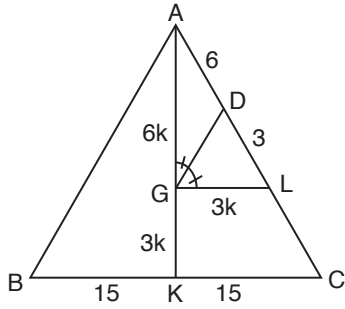
$$a > d \text{ ve } a > e$$

$$\underbrace{|a-b|}_{+} - \underbrace{|a-d|}_{+} + \underbrace{|e-d|}_{+} + \underbrace{|c-b|}_{-} + c = ?$$

$$\left. \begin{array}{l} m(A) > 9^\circ \\ m(B) > m(C) \end{array} \right\} a - b - a + d + e - d - c + b + c = e$$

Cevap: E

9.



$$\frac{6k}{9k} = \frac{3k}{15}$$

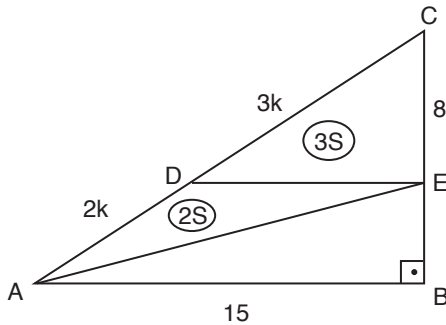
$$\frac{2}{3} = \frac{k}{5}$$

$$k = \frac{10}{3}$$

$$|GK| = 3k = 3 \cdot \frac{10}{3} = 10$$

Cevap: B

10.



Yüksekliği aynı olan üçgenlerin alanları taban ile orantılıdır.

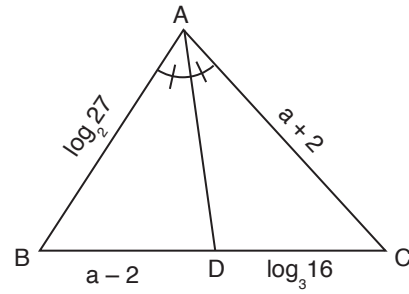
$$5S = \frac{8 \cdot 15}{2}$$

$$S = 12$$

$$A(AED) = 2S = 2 \cdot 12 = 24$$

Cevap: C

11.



iç açıortay teoreminden

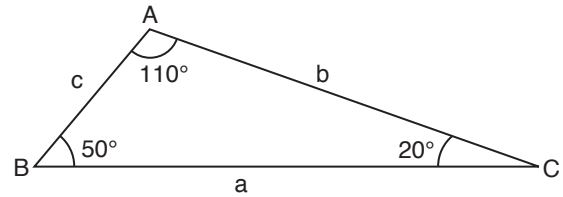
$$\frac{\log_2 27}{a-2} = \frac{a+2}{\log_3 16}$$

$$\log_2 3^3 \cdot \log_3 2^4 = (a-2)(a+2)$$

$$12 = a^2 - 4 \Rightarrow a = 4$$

Cevap: B

12.



$$|AB| = c, |BC| = a, |CA| = b$$

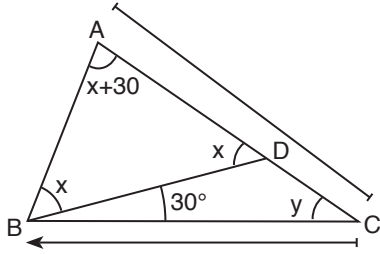
$$m(\widehat{BAC}) = 110^\circ, m(\widehat{ABC}) = 50^\circ$$

$$|b-a| - |c-a| = ?$$

$$-b + a + c - a = c - b$$

Cevap: B

13.



$$|AD| = |AB|, |AC| = |BC|$$

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

$$x + 30 + x + x = 3x + 30$$

$$= 180$$

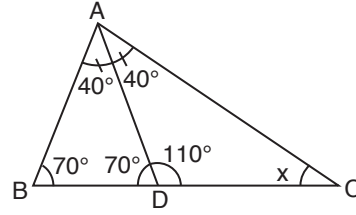
$$\boxed{x = 50}$$

$$x + 30 + x + 30 + y = 180$$

$$y = 20$$

Cevap: E

15.



BDC doğrusal olup

$$s(\widehat{ADB}) = 70 \text{ olur.}$$

ABD ikizkenar olup

$$s(\widehat{ABD}) = 70 \text{ olur.}$$

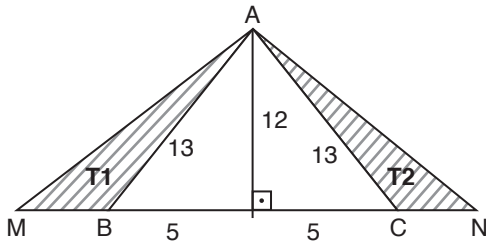
ABD üçgeninde iç açılar toplamı 180° olup $s(\widehat{BAD}) = 40^\circ$ olur.

$$O \text{ halde } 40 + 110 + x = 180^\circ$$

$$x = 30^\circ \text{ olur.}$$

Cevap: E

14.



$$|AB| = |AC| = 13, |BC| = 10$$

$$|MB| = 4, |NC| = 3$$

$$A(\widehat{AMB}) = T1, A(\widehat{ACN}) = T2$$

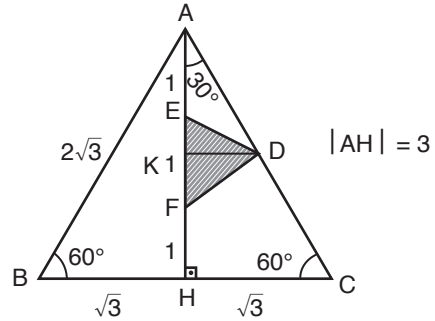
$$T1 = \frac{12 \cdot 4}{2} = 24$$

$$T2 = \frac{12 \cdot 3}{2} = 18$$

42

Cevap: E

16.



$$|AB| = |AC| = |BC|$$

$$|AE| = |EF| = |FH|$$

$$|AD| = |DC|$$

$|KD|$ çizilirse AHC üçgeninin orta tabanı olur.

$$|KD| = \frac{\sqrt{3}}{2}$$

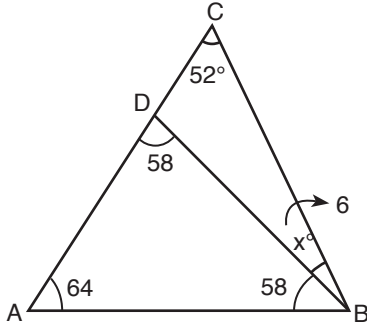
$$|BC| = 2\sqrt{3} \text{ cm}$$

$$A(DEF) = \frac{\frac{\sqrt{3}}{2} \cdot 1}{2} = \frac{\sqrt{3}}{4}$$

$$A(DEF) = \frac{\sqrt{3}}{4}$$

Cevap: A

17.



$$m(\widehat{DCB}) = 52^\circ$$

$|AC| = |BC|$ olduğu için \widehat{A} ile \widehat{B} eşittir.

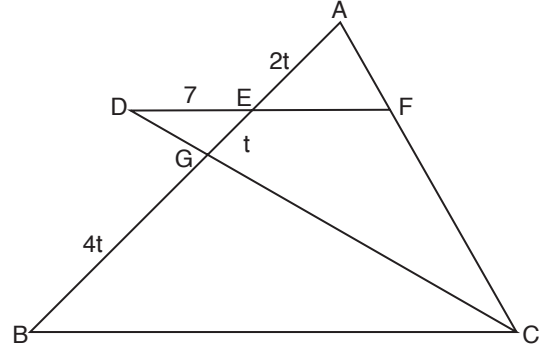
$|AD| = |AB|$ olduğu için $m(\widehat{ADB}) = m(\widehat{ABD}) = 58$

$$58 + x = 64$$

$$x = 6$$

Cevap: B

19.



$[DF] \parallel [BC]$

$$2|AE| = 4|EG| = |GB|$$

$$|DE| = 7$$

Kelebek benzerliğinden

$$\frac{7}{|BC|} = \frac{t}{4t} \Rightarrow |BC| = 28$$

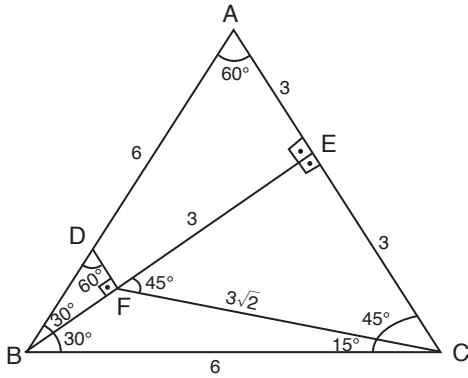
Temel benzerlik teoreminden

$$\frac{|EF|}{|BC|} = \frac{2t}{7t} \Rightarrow \frac{|EF|}{28} = \frac{2}{7}$$

$$|EF| = 8$$

Cevap: C

18.



\widehat{EFC} 'de $45^\circ - 45^\circ - 90^\circ$ üçgeninden

$$|EF| = |EC| = 3 \text{ bulunur.}$$

\widehat{BEC} 'de $30^\circ - 60^\circ - 90^\circ$ özel üçgeni olduğundan

$$|EC| = 3 \rightarrow |BE| = 3\sqrt{3}, |BC| = 6 \text{ bulunur.}$$

$$|AB| = |BC| = |AC| = 6 \text{ olur.}$$

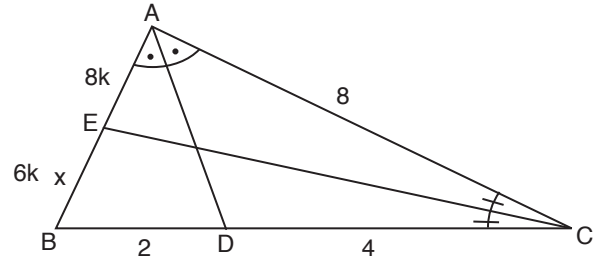
$$|BE| = 3\sqrt{3} \rightarrow |BF| = 3\sqrt{3} - 3 \text{ olarak bulunur.}$$

\widehat{BDF} 'de $30^\circ - 60^\circ - 90^\circ$ üçgeninden

$$|BD| = \sqrt{3}(3\sqrt{3} - 3) = 9 - 3\sqrt{3} \text{ olarak bulunur.}$$

Cevap: A

20.



$$m(\widehat{ACE}) = m(\widehat{BCE})$$

$$m(\widehat{BAD}) = m(\widehat{DAC})$$

$$|DB| = 2$$

$$|DC| = 4$$

$$|AC| = 8$$

$$\frac{14K}{2} = \frac{8}{4}$$

$$7K = 2$$

$$K = \frac{2}{7} \Rightarrow 6K = \frac{12}{7}$$

Cevap: C