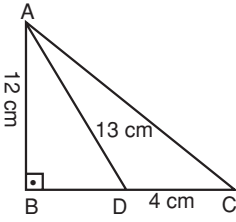


TEST 2 Dik Üçgen

1.



\widehat{ABD} 'ninde;

$$13^2 = 12^2 + |BD|^2 \Rightarrow |BD| = 5 \text{ cm}$$

\widehat{ABC} 'ninde;

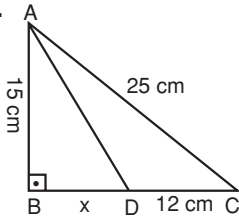
$$|AC|^2 = |AB|^2 + |BC|^2$$

$$|AC|^2 = 12^2 + 9^2$$

$$|AC| = 15$$

Cevap: A

2.



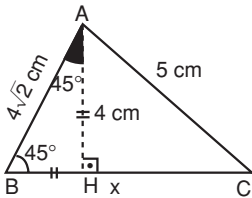
\widehat{ABC} 'ninde;

$$25^2 = 15^2 + (x + 12)^2$$

$$\Rightarrow x + 12 = 20 \Rightarrow x = 8$$

Cevap: B

3.



$[AH] \perp [BC]$ olacak şekilde $[AH]$ çizilir.

$$|AH| = |BH| = 4 \text{ olur. } (90 - 45 - 45)$$

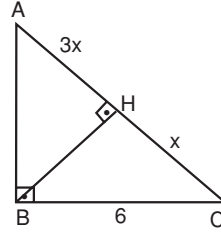
\widehat{AHC} 'ninde;

$$|HC|^2 + 4^2 = 5^2 \Rightarrow |HC| = 3$$

$$\Rightarrow |BC| = 4 + 3 = 7$$

Cevap: B

4.



Öklid'e göre;

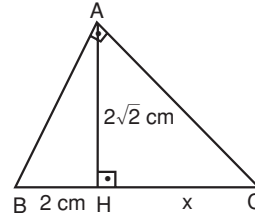
$$6^2 = x \cdot (x + 3x)$$

$$6^2 = x \cdot 4x \Rightarrow x = 3$$

$$|HC| = x = 3$$

Cevap: C

5.

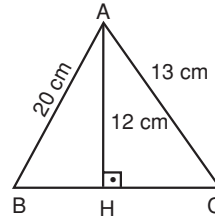


Öklid kuralına göre;

$$(2\sqrt{2})^2 = 2 \cdot x \Rightarrow x = 4$$

Cevap: C

6.



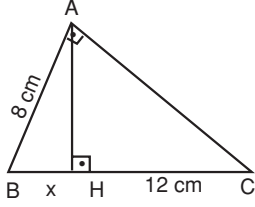
$$|HC|^2 + 12^2 = 13^2 \Rightarrow |HC| = 5$$

$$|BH|^2 + 12^2 = 20^2 \Rightarrow |BH| = 16$$

$$\Rightarrow |BC| = |BH| + |HC| = 16 + 5 = 21$$

Cevap: C

7.



Öklid'e göre;

$$8^2 = x \cdot (x + 12)$$

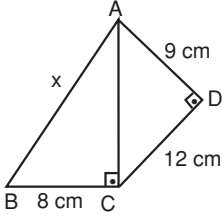
$$64 = x \cdot (x + 12)$$

$$\begin{array}{cc} \downarrow & \downarrow \\ 4 & 4 \end{array}$$

$$x = 4$$

Cevap: D

8.



$$IACI^2 = 9^2 + 12^2 \Rightarrow IACI = 15$$

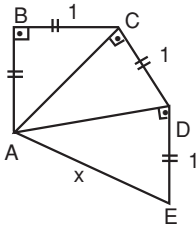
 \widehat{ABC} 'ninde;

$$IACI^2 + 8^2 = x^2 \Rightarrow 15^2 + 8^2 = x^2$$

$$x = 17$$

Cevap: C

9.



$$IACI = 1 \cdot \sqrt{2} = \sqrt{2} \quad (90 - 45 - 45)$$

 \widehat{ACD} 'ninde;

$$(\sqrt{2})^2 + 1^2 = IADI^2 \Rightarrow IADI = \sqrt{3}$$

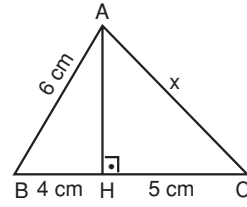
 \widehat{ADE} 'ninde;

$$IADI^2 + 1^2 = x^2 \Rightarrow 3 + 1 = x^2$$

$$\Rightarrow x = 2$$

Cevap: C

10.



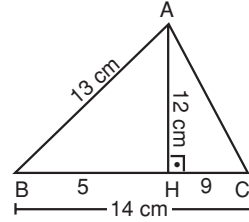
$$IAHI^2 + 4^2 = 6^2 \Rightarrow IAHI^2 = 20$$

$$IAHI^2 + 5^2 = x^2 \Rightarrow 20 + 25 = x^2$$

$$x = 3\sqrt{5}$$

Cevap: B

11.



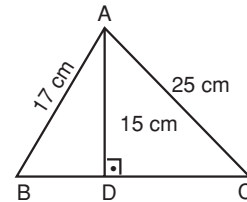
$$IBHI^2 + 12^2 = 13^2 \Rightarrow IBHI = 5$$

$$IHCI = 14 - 5 = 9$$

$$\Rightarrow IACI^2 = 12^2 + 9^2 \Rightarrow IACI = 15$$

Cevap: D

12.



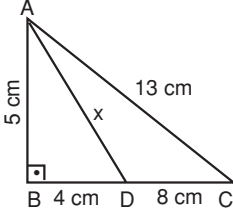
$$IBDI = 8 \quad (8 - 15 - 17 \text{ dik üçgen})$$

$$IDCI = 20 \quad (3 - 4 - 5 \text{ üçgeni ve katları})$$

$$\Rightarrow IBCI = 8 + 20 = 28$$

Cevap: A

13.



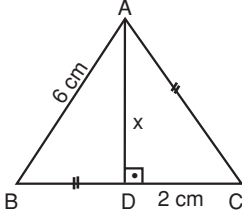
$$IBC I = 12 \text{ (5 - 12 - 13 dik üçgen)}$$

$$IBDI = 12 - 8 = 4$$

$$\Rightarrow x^2 = 5^2 + 4^2 \Rightarrow x = \sqrt{41}$$

Cevap: C

14.


 \widehat{ADC} 'ninde;

$$|AC|^2 = x^2 + 2^2 = x^2 + 4$$

 \widehat{ADB} 'ninde;

$$x^2 + |BD|^2 = 6^2 \text{ (IBDI = |AC|)}$$

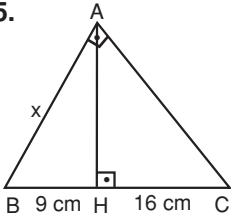
$$\Rightarrow x^2 + |AC|^2 = 6^2$$

$$\Rightarrow x^2 + x^2 + 4 = 6^2$$

$$\Rightarrow 2x^2 + 4 = 36 \Rightarrow x = 4$$

Cevap: B

15.



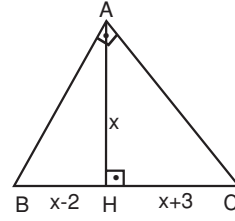
Öklit kuralına göre;

$$x^2 = 9 \cdot (9 + 16) = 9 \cdot 25$$

$$\Rightarrow x = 3 \cdot 5 = 15$$

Cevap: C

16.



Öklit kuralına göre;

$$x^2 = (x-2) \cdot (x+3)$$

$$x^2 = x^2 + 3x - 2x - 6$$

$$x^2 = x^2 + x - 6$$

$$\Rightarrow x = 6$$

$$|ABI|^2 = |AHI|^2 + |BHI|^2$$

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

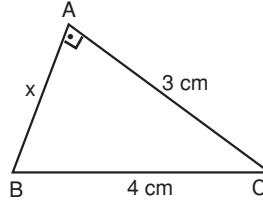
$$= 6^2 + (6-2)^2 = 6^2 + 4^2$$

$$= 52$$

$$\Rightarrow |ABI| = 2\sqrt{13}$$

Cevap: A

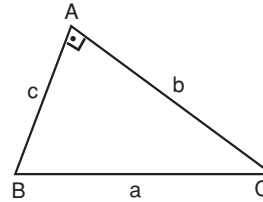
17.



$$4^2 = 3^2 + x^2 \Rightarrow x = \sqrt{7}$$

Cevap: A

18.



$$a^2 = b^2 + c^2$$

$$a^2 + \underbrace{b^2 + c^2}_{= a^2} + 162 \Rightarrow a^2 + a^2 = 162$$

$$\Rightarrow 2a^2 = 162 \Rightarrow a^2 = 81 \Rightarrow a = 9$$

Cevap: D