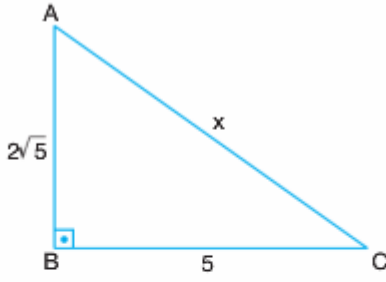


PİSAGOR TEOREMİ

1)



ABC bir dik üçgen

$[AB] \perp [BC]$

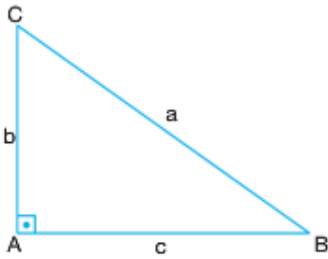
$|AB| = 2\sqrt{5}$ cm , $|BC| = 5$ cm

Yukarıdaki verilene göre, $|AC| = x$ kaç cm dir?

- A) $8\sqrt{5}$ B) 8 C) $7\sqrt{2}$ D) 6 E) $3\sqrt{5}$

ÇÖZÜM:

1)



$$m(\widehat{A}) = 90^\circ \Leftrightarrow a^2 = b^2 + c^2 \text{ (Pisagor)}$$

Buna göre, $x^2 = (2\sqrt{5})^2 + 5^2$

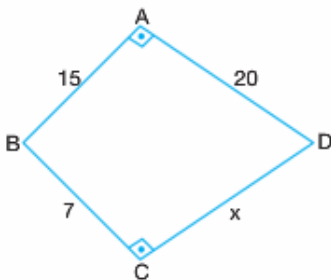
$$x^2 = 20 + 25$$

$$x^2 = 45$$

$$x = 3\sqrt{5} \text{ olur.}$$

Doğru Cevap: E şıkkı

2)



ABCD bir dörtgen

$[DA] \perp [AB]$

$[DC] \perp [BC]$

$|AD| = 20$ cm

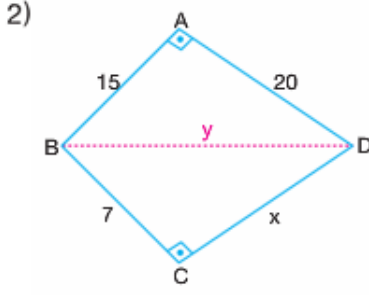
$|AB| = 15$ cm

$|BC| = 7$ cm

Yukarıdaki verilene göre, $|DC| = x$ kaç cm dir?

- A) 16 B) 18 C) 20 D) 24 E) 25

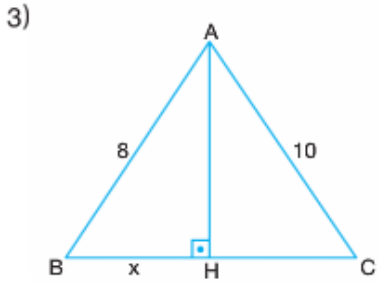
çözüm:



ABD üçgeninde
 $y^2 = 15^2 + 20^2$ (15-20-25)
 $y^2 = 225 + 400$
 $y^2 = 625$
 $y = 25$

BCD üçgeninde, $25^2 = 7^2 + x^2$ (7-24-25)
 $625 = 49 + x^2$
 $x^2 = 576$
 $x = 24$ olur.

Doğru Cevap: D şıkkı

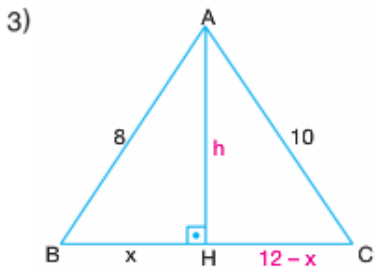


ABC bir üçgen
[AH] \perp [BC]
|AC| = 10 cm
|AB| = 8 cm
|BC| = 12 cm

Yukarıdaki verilere göre, |BH| = x kaç cm dir?

- A) $\frac{5}{2}$ B) $\frac{7}{2}$ C) $\frac{9}{2}$ D) $\frac{11}{2}$ E) $\frac{13}{2}$

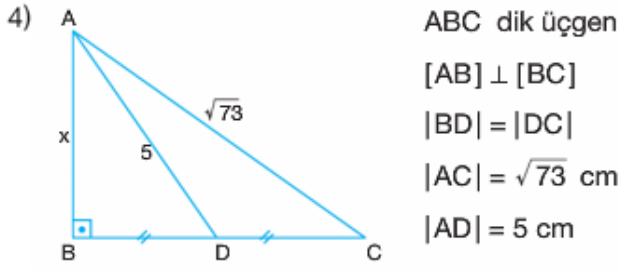
çözüm:



$$\begin{array}{r} (12 - x)^2 + h^2 = 100 \\ - / x^2 + h^2 = 64 \\ \hline (12 - x)^2 - x^2 = 36 \end{array}$$

$\Rightarrow (12 - x - x) \cdot (12 - x + x) = 36$
 $\Rightarrow (12 - 2x) \cdot 12 = 36$
 $\Rightarrow 12 - 2x = 3$
 $\Rightarrow 2x = 9$
 $\Rightarrow x = \frac{9}{2}$ olur.

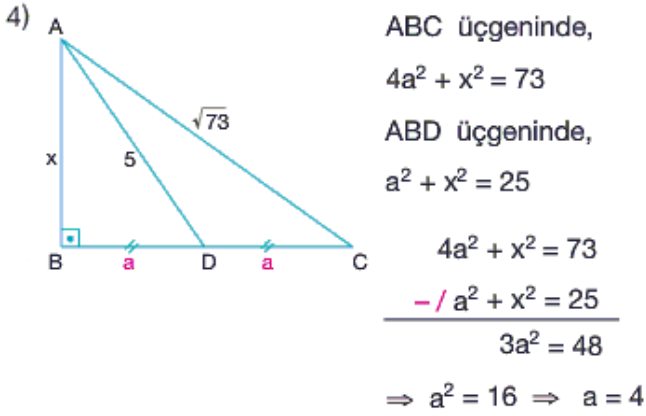
Doğru Cevap: C şıkkı



Yukarıdaki verilere göre, |AB| = x kaç cm dir?

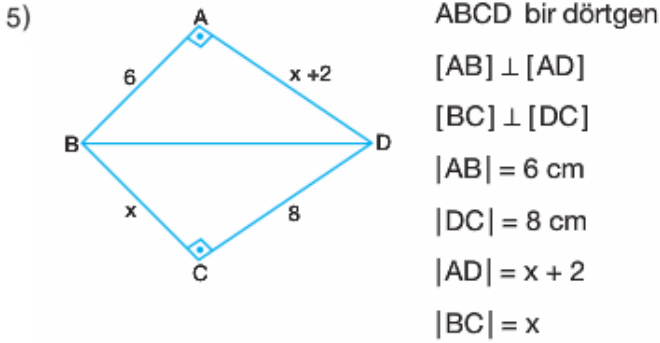
- A) 1 B) 2 C) 3 D) 4 E) 5

ÇÖZÜM:



ABD üçgeninde 3 – 4 – 5 üçgeninden $x = 3$ olur.

Doğru Cevap: C şıkkı



Yukarıdaki verilere göre, |BD| kaç cm dir?

- A) 6 B) 7 C) 8 D) 9 E) 10

ÇÖZÜM:

5) ABD üçgeninde, $|BD|^2 = 6^2 + (x + 2)^2$ I

BCD üçgeninde, $|BD|^2 = x^2 + 8^2$ II

I ve II den

$$6^2 + (x + 2)^2 = x^2 + 8^2$$

$$\Rightarrow 36 + x^2 + 4x + 4 = x^2 + 64$$

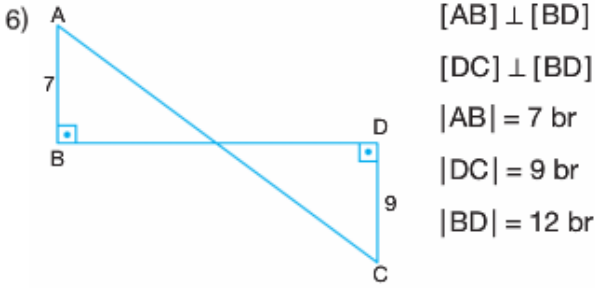
$$\Rightarrow 4x = 24$$

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

$$|BD|^2 = 6^2 + 8^2 \text{ (6 - 8 - 10)}$$

$$\Rightarrow |BD| = 10 \text{ olur.}$$

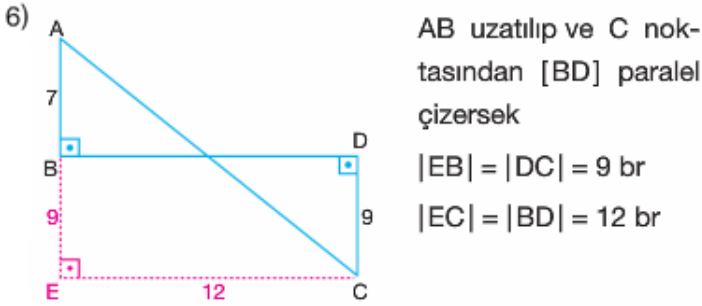
Doğru Cevap: E şıkkı



Yukarıdaki verilere göre, |AC| kaç br dir?

- A) 21 B) 20 C) 18 D) 17 E) 16

ÇÖZÜM:



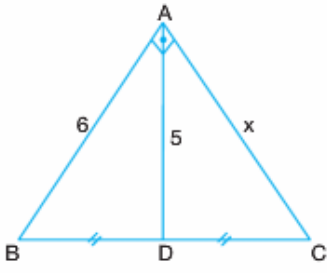
AEC dik üçgeninde,

$$|AC|^2 = 16^2 + 12^2 \text{ (12 - 16 - 20)}$$

$$|AC| = 20 \text{ br olur.}$$

Doğru Cevap: B şıkkı

7)



ABC dik üçgen

$$[AB] \perp [AC]$$

$$|BD| = |DC|$$

$$|AB| = 6 \text{ cm}$$

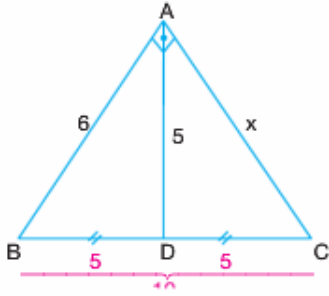
$$|AD| = 5 \text{ cm}$$

Yukarıdaki verilene göre, $|AC| = x$ kaç cm dir?

- A) 4 B) 5 C) 6 D) 7 E) 8

çözüm:

7)



$$\left. \begin{array}{l} [AB] \perp [AC] \\ |BD| = |DC| \end{array} \right\} \Rightarrow |AD| = |BD| = |DC| = 5 \text{ olur.}$$

(Muhteşem Üçlü)

$$|BC| = 2|AD| = 2 \cdot 5 = 10 \text{ cm}$$

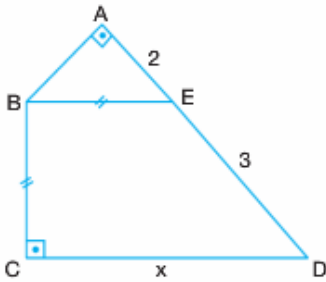
ABC üçgeninde

$$10^2 = 6^2 + x^2 \quad (6 - 8 - 10)$$

$$x = 8 \text{ cm olur.}$$

Doğru Cevap: E şıkkı

8)



ABCD bir dörtgen

$$[AB] \perp [AD]$$

$$[BC] \perp [DC]$$

$$|BE| = |BC|$$

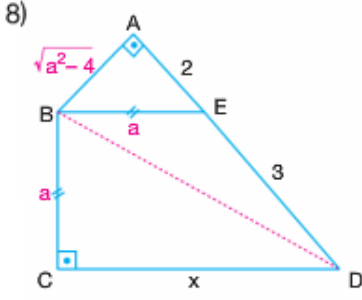
$$|AE| = 2 \text{ cm}$$

$$|ED| = 3 \text{ cm}$$

Yukarıdaki verilene göre, $|CD| = x$ kaç cm dir?

- A) 3 B) $2\sqrt{3}$ C) 4 D) $\sqrt{21}$ E) 5

ÇÖZÜM:



$|EB| = |BC| = a$ diyelim.

ABE üçgeninde

$$|AB|^2 + 2^2 = a^2$$

$$\Rightarrow |AB| = \sqrt{a^2 - 4} \text{ olur.}$$

B ile D yi birleştirelim.

ABD üçgeninde

$$(\sqrt{a^2 - 4})^2 + 5^2 = |BD|^2$$

BCD üçgeninde

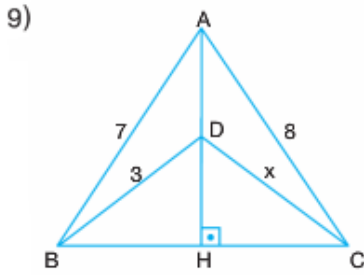
$$a^2 + x^2 = |BD|^2$$

$$(\sqrt{a^2 - 4})^2 + 5^2 = a^2 + x^2$$

$$a^2 - 4 + 25 = a^2 + x^2$$

$$x^2 = 21 \Rightarrow x = \sqrt{21} \text{ olur.}$$

Doğru Cevap: D şıkkı



ABC bir üçgen

$[AH] \perp [BC]$

$|AC| = 8 \text{ cm}$

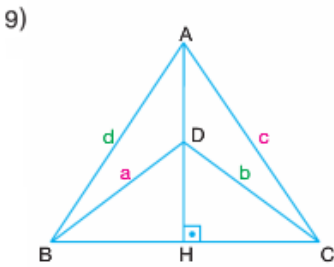
$|AB| = 7 \text{ cm}$

$|BD| = 3 \text{ cm}$

Yukarıdaki verilere göre, $|DC| = x$ kaç cm dir?

- A) $2\sqrt{3}$ B) 4 C) $3\sqrt{2}$ D) $2\sqrt{6}$ E) 5

ÇÖZÜM:



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

Buna göre, $3^2 + 8^2 = x^2 + 7^2 \Rightarrow 9 + 64 = x^2 + 49$

$$\Rightarrow x^2 = 24$$

$$\Rightarrow x = 2\sqrt{6} \text{ olur.}$$

Doğru Cevap: D şıkkı