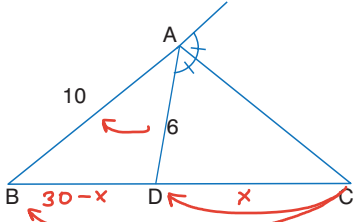


1.



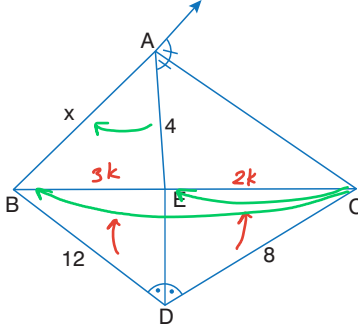
ABC üçgen
[AC] dış açıortay
|AB| = 10 cm
|AD| = 6 cm
|BC| = 30 cm

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

- A) 9 B) 10 C) 12 D) 15 E) 18

$$\frac{x}{30-x} = \frac{6}{10} \Rightarrow 10x = 180 - 6x \Rightarrow 16x = 180 \Rightarrow x = 11.25$$

2.



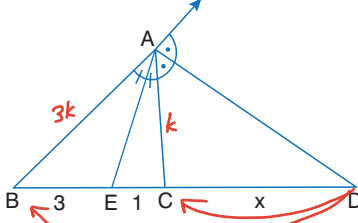
[AC] dış açıortay
[DE] iç açıortay
ABC ve BDC
üçgen
|BD| = 12 cm
|DC| = 8 cm
|AE| = 4 cm

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

- A) 6 B) 8 C) 9 D) 10 E) 12

$$\frac{2k}{5k} = \frac{4}{x} \Rightarrow 2x = 20, x = 10$$

3.



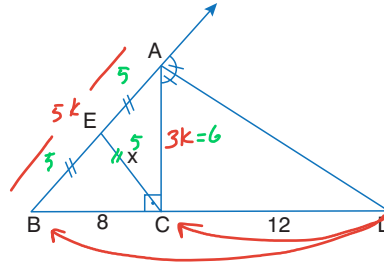
ABD üçgen
[AD] dış açıortay
[AE] iç açı ortay

Buna göre x kaç cm'dir?

- A) $\frac{3}{2}$ B) 2 C) $\frac{5}{2}$ D) 3 E) $\frac{7}{2}$

$$\frac{x}{x+4} = \frac{1}{3} \Rightarrow 3x = x+4 \Rightarrow 2x = 4 \Rightarrow x = 2$$

4.



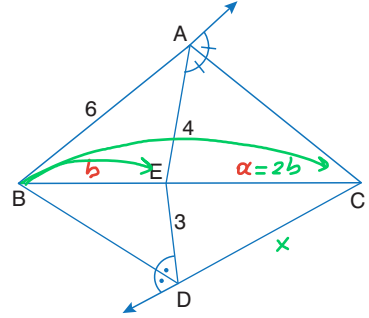
[AD] \widehat{ABC} 'nin
dış açıortayı
[AC] \perp [BD]
|AE| = |EB|
|BC| = 8 cm
|CD| = 12 cm

Yukarıdaki verilere göre, |EC| = x kaç cm'dir?

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

$$1) \frac{12}{20} = \frac{3}{5} \quad 2) (5k)^2 = (3k)^2 + 8^2 \Rightarrow k = 2$$

5.



ABC ve BDC
üçgen
[AC] ve [DB]
dış açıortay
|AB| = 6 cm
|AE| = 4 cm
|ED| = 3 cm

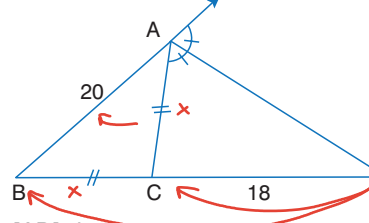
Yukarıdaki verilere göre, |DC| = x kaç cm'dir?

- A) 6 B) 8 C) 9 D) 10 E) 12

$$1) \frac{\alpha}{\alpha+b} = \frac{4}{6} \Rightarrow 3\alpha = 2\alpha + 2b \Rightarrow \alpha = 2b$$

$$2) \frac{b}{3b} = \frac{3}{x} \Rightarrow x = 9$$

6.



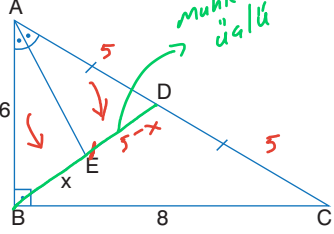
ABD üçgen
|AC| = |BC|
|AB| = 20 cm
|DC| = 18 cm

Yukarıdaki verilere göre, $\widehat{C(ABC)}$ kaç cm'dir?

- A) 36 B) 40 C) 42 D) 44 E) 48

$$\frac{18}{18+x} = \frac{x}{20} \Rightarrow x = 12$$

$$G = 20 + 12 + 12 = 44$$

7.  ABC dik üçgen
B, E, D doğrusal
[AB]⊥[BC]
 $m(\widehat{BAE})=m(\widehat{EAD})$
 $|AD|=|DC|$
 $|AB|=6$ cm
 $|BC|=8$ cm

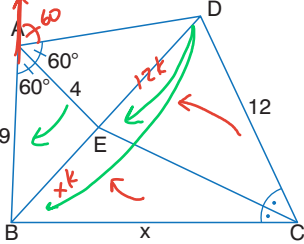
Yukarıdaki verilere göre, $|BE|=x$ kaç cm'dir?

- A) $\frac{25}{11}$ B) $\frac{27}{11}$ C) $\frac{30}{11}$ D) $\frac{32}{11}$ E) $\frac{36}{11}$

$$\frac{6}{x} = \frac{5}{5-x}$$

$$30 - 6x = 5x$$

$$30 = 11x \quad x = \frac{30}{11}$$

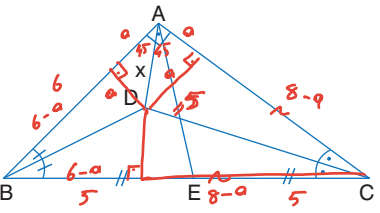
8.  ABCD dörtgen
[BD] köşegen
 $|AB|=9$ cm
 $|AE|=4$ cm
 $|DC|=12$ cm
 $m(\widehat{BAE})=m(\widehat{EAD})=60^\circ$
 $m(\widehat{BCE})=m(\widehat{ECD})$

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

- A) 9 B) 12 C) 15 D) 18 E) 20

$$\frac{12k}{x(12+x)} = \frac{4}{9}$$

$$x = 15$$

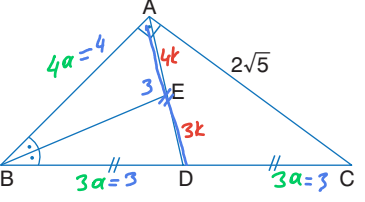
9.  ABC dik üçgen
[AB]⊥[AC]
[BD] ve [CD] açkırtay
 $|BE|=|EC|$
 $|AE|=5$ cm
 $|AC|=8$ cm

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

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

$$|BC| \Rightarrow 14 - 2a = 10 \quad x = a\sqrt{2}$$

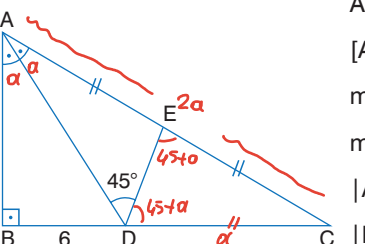
$$a = 2 \quad x = 2\sqrt{2}$$

10.  ABC dik üçgen
[AB]⊥[AC]
A, E, D doğrusal
 $3|AE|=4|ED|$
 $|AC|=2\sqrt{5}$ cm

Yukarıdaki şekilde [BE] açkırtay olduğuna göre, $\angle(\widehat{ABD})$ kaç cm'dir?

- A) 10 B) 12 C) 15 D) 18 E) 20

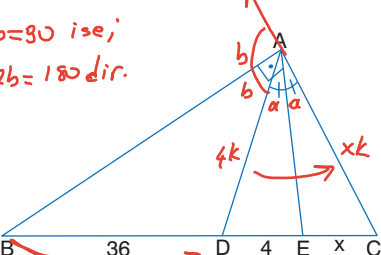
Pisagordan; $(6a)^2 = (4a)^2 + 2\sqrt{5}^2$
 $a = 1$
 $\angle(\widehat{ABD}) = 3+3+4 = 10$

11.  ABC dik üçgen
[AB]⊥[BC]
 $m(\widehat{BAD})=m(\widehat{DAC})$
 $m(\widehat{ADE})=45^\circ$
 $|AE|=|EC|$
 $|BD|=6$ cm

Yukarıdaki verilere göre, $\angle(\widehat{ABC})$ kaç cm'dir?

- A) 24 B) 30 C) 36 D) 40 E) 48

1) $\frac{|AB|}{6} = \frac{2a}{a}$ 2) $(2a)^2 = 12^2 + (6+a)^2$
 $|AB|=12$ $a = 10$
3) $\angle = 12 + 16 + 20 = 48$

12.  ABC üçgen
[AB]⊥[AE]
 $|BD|=36$ cm
 $|DE|=4$ cm

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

- A) 5 B) 6 C) 8 D) 9 E) 12

$$\frac{36}{40+x} = \frac{4k}{xk}$$

$$x = 5$$