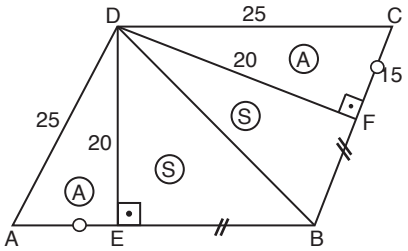
1.



|BD| köşegen

$A(\widehat{ADE}) = A(\widehat{DCF})$ olduğundan

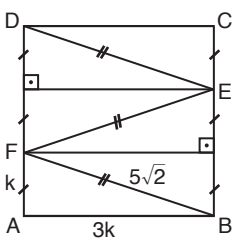
$|DE| = |DF| = 20$ birimdir.

$\widehat{ADE}$ ve $\widehat{DCF}$ 15 – 20 – 25 özel üçgenidir.

Ç(ABCD) = 4.25 = 100

Cevap: C

2.



FAB üçgeninde Pisagor'dan

$k^2 + (3k)^2 = (5\sqrt{2})^2$

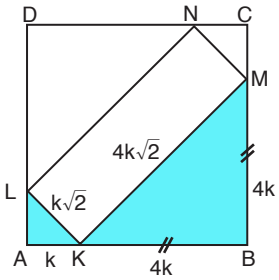
$10k^2 = 50$

$k^2 = 5$

$A(ABCD) = (3k)^2 = 9k^2 = 9.5 = 45$

Cevap: B

3.



Taralı Alan = $A(\widehat{LAK}) + A(\widehat{KBM})$

$= \frac{k^2}{2} + \frac{(4k)^2}{2}$

$= \frac{17k^2}{2}$

$= \frac{17(\sqrt{2})^2}{2}$

$= 17$

$2(k\sqrt{2} + 4k\sqrt{2}) = 20$

$10k\sqrt{2} = 20$

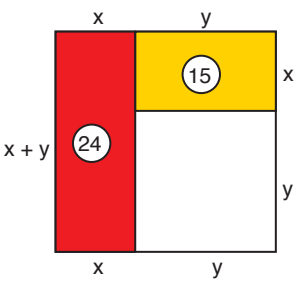
$k\sqrt{2} = 2$

$k = \frac{2}{\sqrt{2}}$ $(\sqrt{2})$

$k = \sqrt{2}$

Cevap: E

4.



Küçük karenin alanı = $y^2 = 5^2$

$= 25$

$x.y = 15$

$x(x + y) = 24$

$x^2 + xy = 24$

$x^2 + 15 = 24$

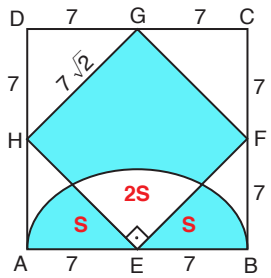
$x^2 = 9$

$x = 3$

$y = 5$

Cevap: A

5.

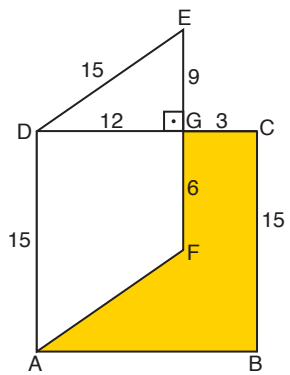


Alan taşıma yapılırsa;

Boyalı Alan = $(7\sqrt{2})^2 = 98$

Cevap: E

6.



- |DA| kenarı kare ile eşkenar dörtgenin ortak kenarı olduğundan eşkenar dörtgenin bir kenar uzunluğu 15 birimdir.
- DEG üçgeni 9 – 12 – 15 özel üçgenidir.
- GFAD bir dik yamuktur.
- Taralı Alan = A(ABCD) – A(GFAD)

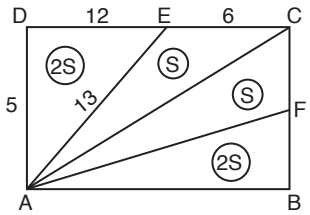
$$= 15^2 - \left(\frac{6+15}{2}\right)\cdot 12$$

$$= 225 - 126$$

$$= 99$$

Cevap: B

7.

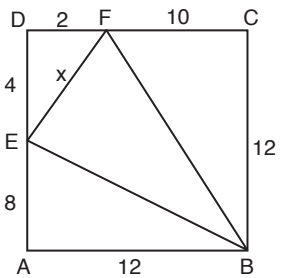


- |AC| köşegeni dikdörtgenin alanını iki eşit parçaya böler.
- ACD üçgeninde |EC| = 6 kenarına düşen alan S ve |DE| kenarına düşen alan 2s olduğundan |DE| = 12 birimdir.
- ADE üçgeni 5 – 12 – 13 özel üçgenidir.
- ABCD dikdörtgeninin çevresi

$$2(5 + 18) = 2.23 = 46$$

Cevap: C

8.



A(ABCD) = 60 + 36 + 48

= 144 olduğundan

ABCD karesinin kenar uzunluğu

$\sqrt{144} = 12$ birimdir.

$$A(\widehat{BCF}) = \frac{|FC|.12}{2} = 60$$

$|FC| = 10$

$|DF| = 2$

$$A(\widehat{EAB}) = \frac{|EA|.12}{2} = 48$$

$|EA| = 8$

$|DE| = 4$

FDE üçgeninde Pisagordan

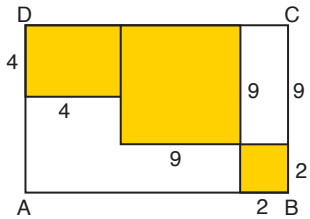
$x^2 = 2^2 + 4^2$

$x^2 = 20$

$x = 2\sqrt{5}$

Cevap: B

9.

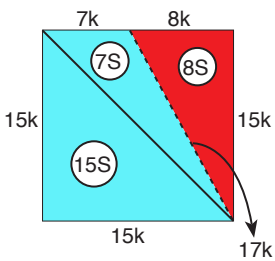


$4.4 + 9.9 + 2.2 = 16 + 81 + 4$

$= 101$

Cevap: A

10.



$$\frac{\text{Alan}_{\text{kırmızı}}}{\text{Alan}_{\text{mavi}}} = \frac{4}{11} = \frac{8}{22}$$

Kartonun Alanı $= 8S + 22S$

$= 30S$

$$\frac{\text{Çevre}_{\text{kırmızı}}}{\text{Çevre}_{\text{mavi}}} = \frac{8k + 15k + 17k}{7k + 15k + 15k + 17k}$$

$$= \frac{40\cancel{k}}{54\cancel{k}}$$

$$= \frac{20}{27}$$

Cevap: C

11. $m(\widehat{DEC}) + 60 + 90 + 108 = 360$

$m(\widehat{DEC}) + 258 = 360$

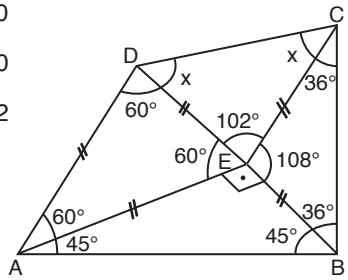
$m(\widehat{DEC}) = 102$

DEC üçgeninden;

$x + 102 + x = 180$

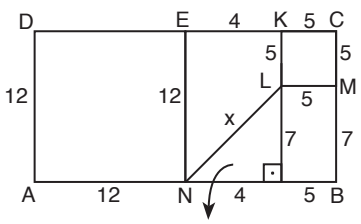
$2x = 78$

$x = 39$



Cevap: A

12.



$x^2 = 4^2 + 7^2$

$x^2 = 16 + 49$

$x^2 = 65$

$x = \sqrt{65}$

Cevap: D