

5-есеп

$$m! + 12 = n^2 \quad (m=4; n=6)$$

$$4! + 12 = 6^2$$

$$24 + 12 = 36$$

4-есеп

$$\begin{cases} x^2 + y^2 - 2x - 4y + 4 = 0 \\ y - a = \sqrt{a^2 - (x-3)^2} \end{cases}$$

$$\begin{cases} x^2 + y^2 - 2x - 4y + 4 = 0 \\ y = \sqrt{a^2 - (x-3)^2} + a = a - (x-3) + a = 2a - (x-3) \end{cases}$$

$$x^2 - (2a - (x-3))^2 - 2x - 4 \cdot 2a - (x-3)^2 + 4 = 0$$

$$x^2 - 2x = 0$$

$$x(x-2) = 0$$

$$x = 0; x - 2 = 0 \\ x = 2$$

$$y - a = \sqrt{a^2 - (x-3)^2}$$

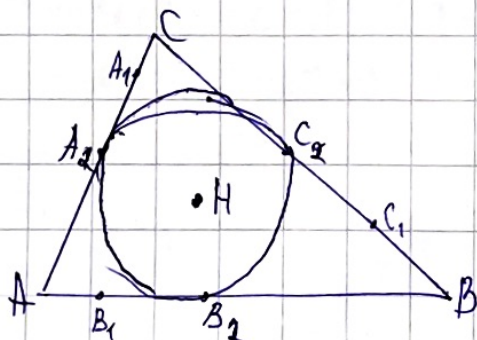
$$2a - (2-3) - a = \sqrt{a^2 - (2-3)^2}$$

$$a - 1 = \sqrt{a^2 - 1^2}$$

$$a = \sqrt{a^2 - 1^2 + 1}$$

$$a = a^2$$

3-есеп



Берімені

$\triangle ABC$

Тік: $SA_2B_2C_2 : SA_1B_1C_1$

$$S_{A_2B_2C_2} =$$

2-есеп

$$\sin^4 x + \cos^4 x + \sin 2x = 1,5$$

$$\sin 2x + \cos 2x = 1$$

$$\sin^4 x + \cos^4 x = 1^4$$

$$1 + \sin 2x = 1,5$$

$$\sin 2x = 0,5$$

$$\sin = \frac{0,5}{2} = 0,25$$

1-есеп

Берімені

Н.Копылов с.с.

Тік: $EXYD(a,b)$

$EXOE(a,b)$

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$$\begin{cases} x^2 + y^2 - 2x - 4y + 4 = 0 \\ y - a = \sqrt{a^2 - (x-3)^2} \end{cases}$$

$$\sin x + \cos x = 1$$

$$1 + \sin 2x = 1,5$$

$$\sin 2x = 0,5$$

$$\sin x = \frac{0,5}{2} = 0,25$$

$$\begin{cases} x^2 + y^2 - 2x - 4y + 4 = 0 \\ y = \sqrt{a^2 - (x-3)^2} \end{cases}$$

$$y = \sqrt{a^2 - (x-3)^2} = \sqrt{a^2 - x^2 + 6x - 9} = a - (x-3) + a = 2a - (x-3)$$

$$y = (x-3)$$

$$x^2 + (2a - (x-3))^2 - 2x - 4(2a - (x-3)) + 4 = 0$$

$$x^2 - 2x = 0$$

$$x(x-2) = 0$$

$$x = 2$$

$$x = 0$$

$$x - 2 = 0$$

$$x = 2$$

$$2a - (2-3) - a = \sqrt{a^2 - (2-3)^2}$$

$$2a - (2-3) - a = \sqrt{a^2 - (2-3)^2}$$

$$a - 1 = \sqrt{a^2 - 1^2}$$

$$a - 1 = \sqrt{a^2 - 1^2}$$

$$a - 1 = a - 1$$

$$a = \sqrt{a^2 - 1^2 + 1^2}$$

$$a - 1 = a - 1$$

$$a = a^2 - 1$$

$$a = 1$$

$$y - a = a - (x-3)$$

$$y = a - (x-3) + a$$

$$y = 2a - (x-3)$$

$$x^2 + (2a - (x-3))^2 - 2x - 4(2a - (x-3)) + 4 = 0$$

$$x^2 + 2a^2 - 2x - 8a - 4x + 12 + 4 = 0$$

$$2a^2 + 9 - 2x - 8a - 4x + 12 + 4 = 0$$

$$2a^2 - 3x + 6 = 0$$

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

$$x^2 + (2a - (x-3))^2 - 2x - 8a - 4x - 12 + 4 = 0$$

$$x^2 + 2a^2 - 2x - 8a - 4x - 12 + 4 = 0$$

$$2a^2 + 17 - 8x - 8a = 0$$

$$2a^2 + 17 - 8x - 8a = 0$$

$$8,5$$

$$\begin{array}{r} 17 \\ \times 17 \\ \hline 119 \\ 119 \\ \hline 289 \end{array}$$

$$\begin{array}{r} 48 \\ \times 2 \\ \hline 96 \\ 960 \\ \hline 960 \end{array}$$

5-есен

$$m! + 12 = n^2 \quad (4, 6)$$

$$m = 4 ; n = 6$$

$$4! + 12 = 6^2$$

$$24 + 12 = 36$$

4-есен

$$\begin{cases} x^2 + y^2 - 2x - 4y + 4 = 0 \\ y - a = \sqrt{a^2 - (x-3)^2} \end{cases}$$

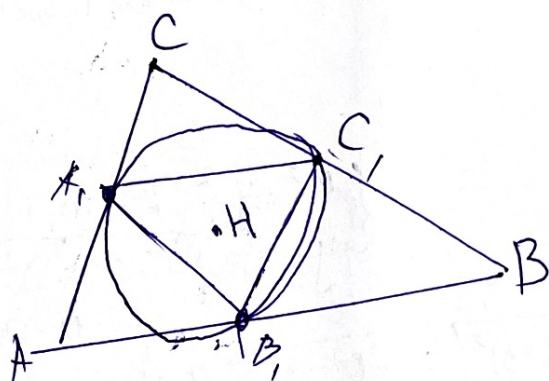
$$\begin{cases} x^2 + y^2 - 2x - 4y + 4 = 0 \\ y = \sqrt{a^2 - (x-3)^2} + a = a - (x-3) + a = 2a - (x-3) \end{cases}$$

$$x^2 - (2a - (x-3))^2 - 2x - 4 \cdot 2a - (x-3) + 4 = 0$$

$$x^2 - 4a - x^2 - 9 - 2x - 4(2a - (x-3)) + 4 = 0$$

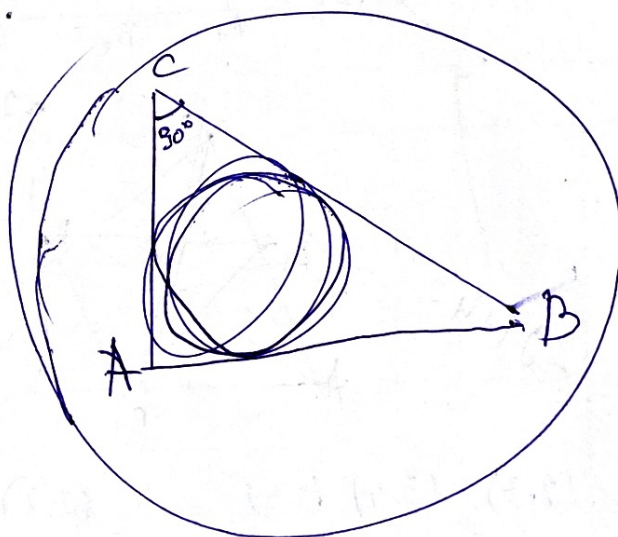
$$-2a^2 - 12 - 2x = 0$$

$$D = 144 - 4(2) \cdot 1 = 152$$



$$A_2 B_2 C_2 : A_1 B_1 C_1$$

$$p > 3$$



$$\angle C = 90^\circ$$

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1) $\begin{matrix} EKVO = a \\ EKOE = b \end{matrix}$ $EKVO + EKOE = a + b$ (Батаң артады)

2. $\sin^4 x + \cos^4 x + \sin 2x = 1,5$

$\sin^4 x + \cos^4 x = (\sin^2 x + \cos^2 x) - 2\sin^2 x \cos^2 x = 1 - \frac{1}{2} (2\sin^2 x \cos^2 x) = 1 - \frac{1}{2} \sin^2 2x$

$1 - \frac{1}{2} \sin^2 2x + \sin 2x = 1,5$

$-\frac{1}{2} \sin^2 2x + \sin 2x - 0,5 = 0$

$\sin^2 2x - 2\sin 2x + 1 = 0$

$(\sin^2 2x - 1)^2 = 0$

$\sin 2x = 1$

$2x = \frac{\pi}{2} + 2\pi k \quad k \in \mathbb{Z}$

3) $m^2 + 12 = n^2$

$m=1 \quad 1+12=13$ (тағын квадрат емес)

$m=2 \quad 2+12=14$

$m=3 \quad 3+12=15$ (бәтәңдік) $3+12=6+12=18$

$m=4 \quad 4+12=16=24+12=36 \quad 36=6^2$

Жалпы: 36 шығады $36=6^2$

4. $\begin{cases} x^2 + y^2 - 2x - 4y + 4 = 0 \\ y - a = 5a^2 - (x-3)^2 \end{cases}$

3. Маған: 0 те мен

Аз: А нүктесіне бағтаседі

1)

$$\sin^4 x + \cos^4 x + \sin 2x = 1,5$$

$$\sin^4 x + \cos^4 x = 1$$

$$\sin 2x = 0,5$$

$$\sin^4 x + \cos^4 x = (\sin^2 x + \cos^2 x) - 2\sin^2 x \cos^2 x$$

$$\cos^2 x = 1 - \frac{1}{2}(2\sin x \cos x) = 1 - \frac{1}{2}\sin 2x$$

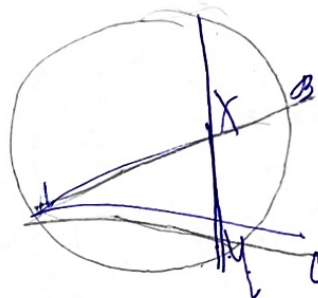
$$5) m_1 + 12 = n^2 \quad 1 - \frac{1}{2} \sin 2x$$

$$8 + 12 = 20$$



$$4) x^2 + y^2 - 2x - 4y + 4 = 0$$

$$y - 2 = \sqrt{a^2 - (x-1)^2}$$



XM: AB

$$5) m_1 + 12 = n^2$$

$$n = 1 + 12 = 13$$

$$n = 2 + 12 = 14$$

$$n = 3 + 12 = 15$$

$$n = 4 + 12 = 16$$

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1. $\sin^4 x = a$

$\cos^4 x = b$

$\sin^4 x + \cos^4 x = a + b$

Краткая запись

2. $\sin^4 x + \cos^4 x + \sin 2x = 1.5$

$\sin^4 x + \cos^4 x = (\sin^2 x + \cos^2 x)^2 - 2\sin^2 x \cos^2 x = 1 - \frac{1}{2} \sin^2 2x$

$1 - \frac{1}{2} \sin^2 2x + \sin 2x = 1.5$

$-\frac{1}{2} \sin^2 2x + \sin 2x - 0.5 = 0$

$\sin^2 2x - 2\sin 2x + 1 = 0$

$(\sin 2x - 1)^2 = 0$

$\sin 2x = 1$

ЖК: $2x = \frac{\pi}{2} + 2\pi k \quad k \in \mathbb{Z} \quad : 2$

5 - есеп

$m_1 + 12 = n^2$

$m_1 = 4$

$4 + 12 = 16$ (бөлшегі)

$m_1 = 2$

$2 + 12 = 14$

$m_1 = 3$

$3 + 12 = 15$

$m_1 = 4$

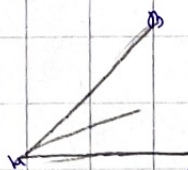
$4 + 12 = 16 = 4^2$

ЖК: $m = 4$ болса 4 жүйе 36 = 6 жүйе

4 - есеп

$x^2 + y^2 - 2x - 4y + 4 = 0$
 $y = a - \sqrt{a^2 - (x-3)^2}$

$\sqrt{a^2 - (x-3)^2} = a^2 - (x-3)(x+3)$



3 - есеп. АБП:

Оле мен баала

Күнтізбесі

$B_2 = 4$

$B_2 = 4$

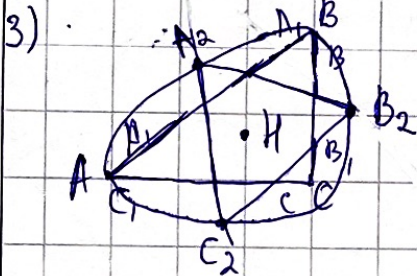
ЖК: 0

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1) $11 - N$ $(a - b \geq N)$ $a = 5$
 $1) a - a + b - b + a + b = 11$ $b = 6$

2) $a + b = 11$
 $1) 5 - 5 + 6 - 6 + 8 + 6 = 11$
 $2) 5 + 6 = 11$ $N: 11 = 11$

2) $\sin^4 x + \cos^4 x + \sin 2x = 1,5$
 $x^4 (\sin + \cos) + \sin 2x = 1,5$
 $\sin + \cos + \sin 2x = 1,5$
 $2x^5 - 1,5 = \sin + \cos + \sin$
 $0,5x^5 = \sin + \cos + \sin$



$\angle ABC$ $\text{бүйк} \rightarrow AA_1; BB_1; CC_1;$
 $\text{орыс} \rightarrow H$

$\angle ABC = A_2B_2C_2$

4) $\begin{cases} x^2 + y^2 - 2x - 4y + 4 = 0 \\ y - a = \sqrt{a^2 - (x-3)^2} \end{cases}$ $x = 2$
 $y = 2$
 $a = 4$

1) $x^2 + y^2 - 2x - 4y + 4 = 0$ $-2 = \sqrt{16 - 4 - 12 + 8}$
 $2^2 + 2^2 - 2 \cdot 2 - 4 \cdot 2 + 4 = 0$ $-2 = \sqrt{8}$
 $8 - 4 - 8 + 4 = 0$ $-2 = 3$

2) $y - a = \sqrt{a^2 - (x-3)^2}$ $a = 3 + 2$ $N: a = 6$
 $2 - 4 = \sqrt{4^2 - (2-3)^2}$

Парақтың артқы жағын толтырмаңыз / Обратную сторону листа не заполнять

N4.

$$x^2 + y^2 - 2x - 4y + 4 = 0$$

$$y - a = \sqrt{a^2 - (x - 3)^2}$$

$$x^2 + y^2 - 2x - 4y + 4 = 0$$

$$x^2 + y^2 - 2x = 0 \quad -4y + 4 = 0$$

$$x = 1$$

$$y = 1$$

$$y = 1$$

$$y - a = \sqrt{a^2 - (x - 3)^2}$$

$$1 - a = a \sqrt{(1 - 3)^2}$$

$$1 - a = a \sqrt{1 + 6 + 9}$$

$$1 - a = a \sqrt{16}$$

$$1 - a = 4a$$

$$1 = 5a$$

$$a = \frac{1}{5} = 0,2$$

N5.

$$m! + 12 = n^2$$

$$m = 4 \quad n = 6$$

$$4! + 12 = 6^2$$

$$24 + 12 = 36$$

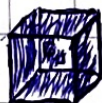
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$$m! + 12 = h^2$$

$$m = 4 \quad h = 6$$

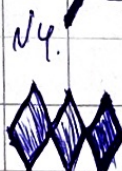
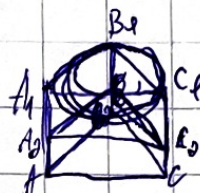
$$24 + 12 = 36$$

N5



N3

$$x^2 + y^2 - 2x - 4y + 4 = 0$$

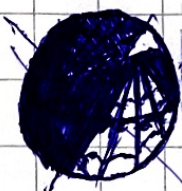


$$x^2 + y^2 - 2x = 0 \quad -4y + 4 = 0$$

$$x = 1$$

$$y = 1$$

$$y = 1$$



$$y - a = \sqrt{a^2 - (1-3)^2}$$

$$1 - a = a \sqrt{x^2 + 6x + 9}$$

$$1 - a = a \sqrt{1^2 + 6 + 9}$$

$$1 - a = a \sqrt{16}$$

$$1 - a = 4a$$

$$1 = 5a$$

$$a = \frac{1}{5}$$

$$a = 0.2$$



1 2 3 4 5

732

