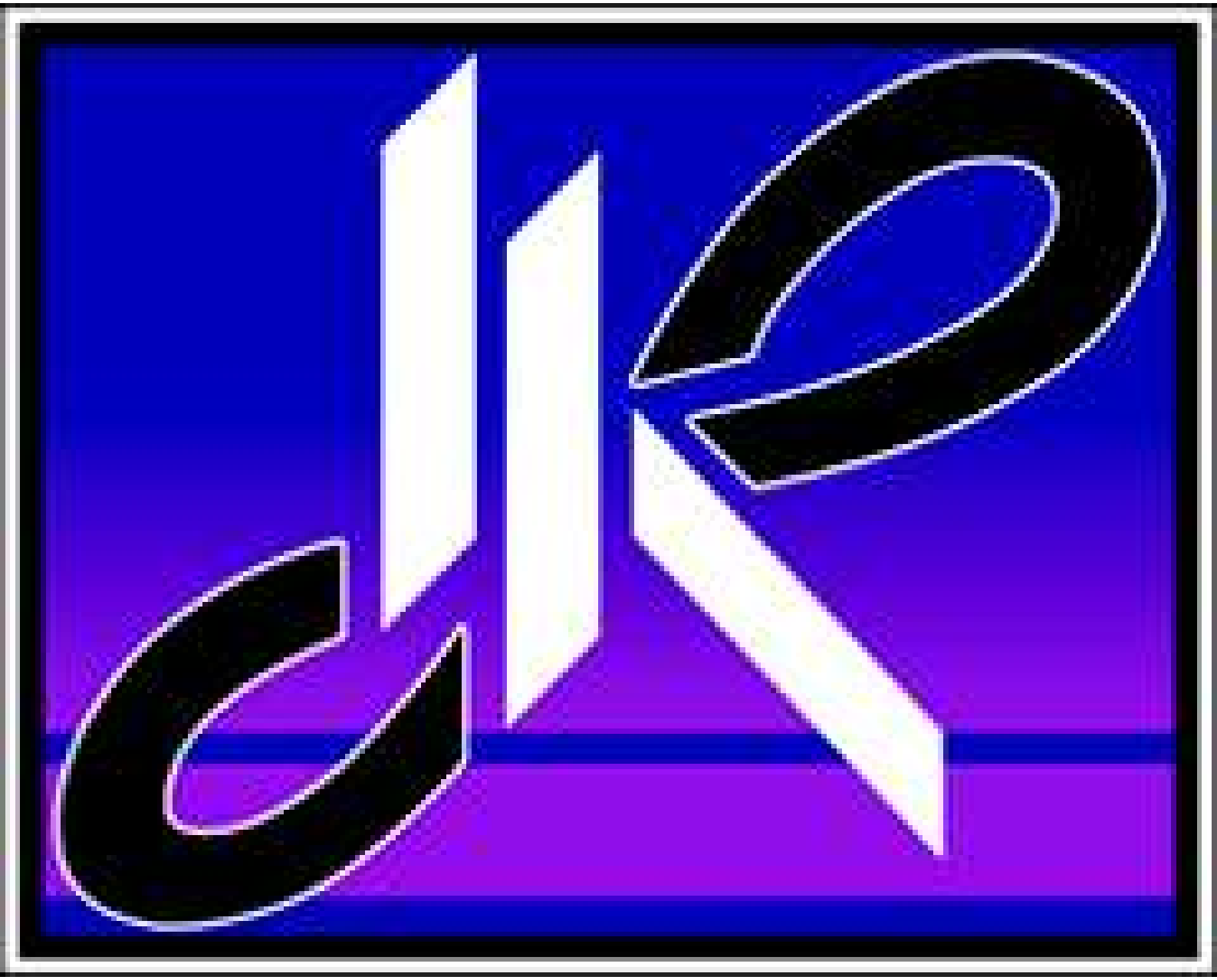

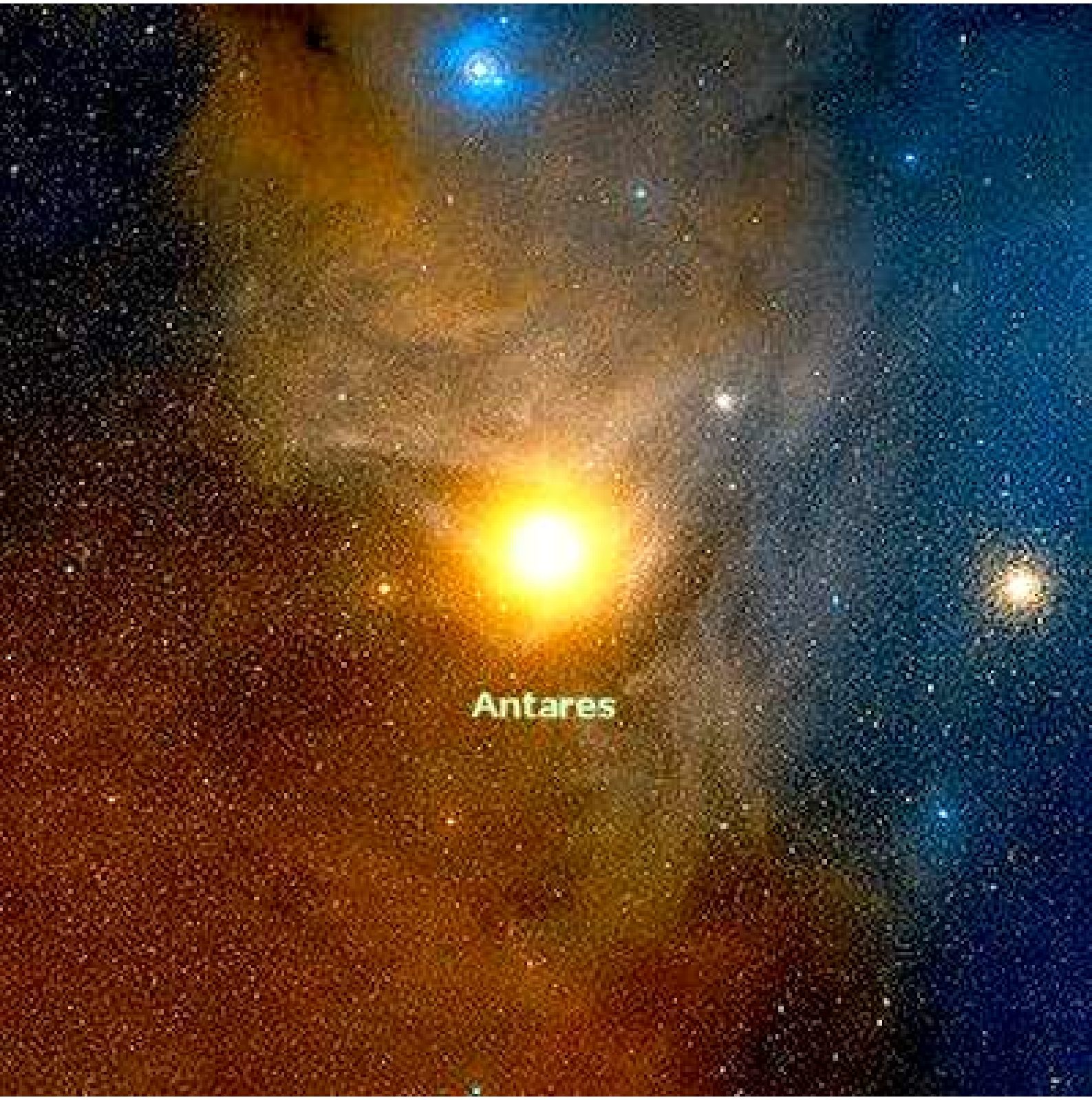

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ABITURIYENT–2010

(2010.8.1)

Yig'indining oxirgi raqamini toping.

$2^{3215}+9^{326}+7^{425}$

Yechish.

$\frac{3215}{4}=803 \to 3.$ $\frac{326}{4}=81 \to 2.$ $\frac{425}{4}=106 \to 1.$

$2^3+9^2+7=8+..1+7=...6.$ **Javob; 6.**

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ABITURIYENT–2010

(2010.8.2)

Hisoblang.

$$\frac{1}{0,(2)}+\frac{1}{0,(4)}+\frac{1}{0,(6)}.$$

Yechish.

$$0,(a)=\frac{a}{9}.$$

$$\frac{1}{\frac{2}{9}}+\frac{1}{\frac{4}{9}}+\frac{1}{\frac{6}{9}}=\frac{9}{2}+\frac{9}{4}+\frac{3}{2}=\frac{18+9+6}{4}.$$

$$\frac{33}{4}=8\frac{1}{4}.$$ Javob; $8\frac{1}{4}$.

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ABITURIYENT–2010

(2010.8.3)

$$\left(\frac{x}{x-1}-\frac{x}{x+1}\right):\frac{1}{x-\frac{1}{x}}=?$$

Yechish.

$$\left(\frac{x^2+x-x^2+x}{x^2-1}\right)\times\frac{x^2-1}{x}=\frac{2x}{x^2-1}\times\frac{x^2-1}{x}=2.$$ Javob; 2.

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ABITURIYENT–2010

(2010.8.4)

$2\sqrt{3-\sqrt{5}}\times(6+2\sqrt{5})(\sqrt{10}-\sqrt{5})=?$

Yechish.

$$3-\sqrt{5}=\sqrt{\frac{3+\sqrt{9-5}}{2}}-\sqrt{\frac{3-\sqrt{9-5}}{2}}=\left(\frac{\sqrt{10}}{2}-\frac{\sqrt{2}}{2}\right)^2$$

$$2\sqrt{\left(\frac{\sqrt{10}}{2}-\frac{\sqrt{2}}{2}\right)^2}(6+2\sqrt{5})(\sqrt{10}-\sqrt{5})$$

$\sqrt{10}-\sqrt{2})(6+2\sqrt{5})(\sqrt{10}-\sqrt{2})$.

$(\sqrt{10}-\sqrt{2})^2(6+2\sqrt{5})$.

$(10-4\sqrt{5}+2)(6+2\sqrt{5})$.

$60+20\sqrt{5}-24\sqrt{5}-40+12+4\sqrt{5}=32$.

Javob; 32.

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ABITURIYENT–2010

(2010.8.5)

Tenglamani yeching.

$378:(50-115:\mathbf{x})=14.$

Yechish.

$$378:\frac{50\mathbf{x}-115}{\mathbf{x}}=14. \Rightarrow \frac{378\mathbf{x}}{50\mathbf{x}-115}=14.$$

$$378\mathbf{x}=14(50\mathbf{x}-115).$$

$$378\mathbf{x}=700\mathbf{x}-1610.$$

$$378\mathbf{x}-700\mathbf{x}=1610.$$

$$-322\mathbf{x}=-1610. \Big|^{-1} \Rightarrow \mathbf{x}=\frac{1610}{322}=5.$$ Javob; 5.

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ABITURIYENT–2010

(2010.8.6)

Tengsizlikni yeching.

$$\frac{6\mathbf{x}-4-4\mathbf{x}^2}{4-\mathbf{x}^2}\geqslant 0$$

Yechish.

$$-4\mathbf{x}^2+6\mathbf{x}-4\geqslant 0\Big|^{-2} \Rightarrow 2\mathbf{x}^2-3\mathbf{x}-2\leqslant 0.$$

$$\mathbf{x}_{1,2}=\frac{3\pm\sqrt{9+16}}{4}=\frac{3\pm 5}{4}.\ \mathbf{x}_1=2.\ \ \mathbf{x}_2=-\frac{1}{2}.$$

$$-\mathbf{x}^2+4>0\Big|^{-1}.\Rightarrow\ \mathbf{x}^2-4<0.$$

$$\mathbf{x}<\pm 2.$$

Javob; $(-\infty;-2)\cup[-0{,}5;2)\cup(2;\infty)$.

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ABITURIYENT–2010

(2010.8.7)

x va y natural sonlar bo'lib $x^2-y^2=19$

bo'lsa, $\frac{x}{y}+\frac{y}{x}=?$

Yechish.

$x^2=19+y^2.$

$y=9.$

$x=\sqrt{19+81}=\sqrt{100}=10.$

$\frac{10}{9}+\frac{9}{10}=\frac{100+81}{90}=\frac{181}{90}.$ **Javob;** $\frac{181}{90}.$

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ABITURIYENT–2010

(2010.8.8)

Tenglamaning haqiqiy ildizlarini yig'indisini toping.

$|x^2+4x+2|=3.$

Yechish.

$x^2+4x+2=-3. \Rightarrow x^2+4x+5=0 \Rightarrow \varnothing.$

$x^2+4x+2=3. \Rightarrow x^2+4x-1=0$

$$x_{1,2}=\frac{-4\pm\sqrt{16-4}}{2}=\frac{-4\pm2\sqrt{3}}{2}=\frac{2(-2\pm\sqrt{3})}{2}.$$

$x_1=-2-\sqrt{3}.\ x_2=-2+\sqrt{3}.$

$x_1+x_2=-2-\sqrt{2}-2+\sqrt{3}=-4.$ Javob; $-4.$

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ABITURIYENT–2010

(2010.8.9)

Tenglamaning ildizlari ko'paytmasini toping.

$\sqrt{x+1}+\sqrt{2x+3}=5.$

Yechish.

$2x+3=25-10\sqrt{x+1}+x+1.$

$2x-x-1+3=25-10\sqrt{x+1}.$

$x+2=25-10\sqrt{x+1}$

$x=25-2-10\sqrt{x+1}.$

$x=3.$

$3=23-10\sqrt{3+1}.$

$3=23-10\times 2.$

$3=23-20.$

$3=3. \rightarrow x=3.$ Javob; 3.

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ABITURIYENT–2010

(2010.8.10)

Agar arifmetik progressiyada $Sn-S_{n-1}=52$ va $S_{n+1}-S_n=63$ bo'lsa, uning hadlari ayirmasi qanchaga teng bo'ladi?

Yechish.

$S_{n-1}=52=a_n$.

$S_{n+1}-S_n=63=a_{n+1}$.

$d=a_{n+1}-a_n=63-52=11$. Javob; 11.

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ABITURIYENT–2010

(2010.8.11)

Massasi 300 g va konsertratsiyasi 25% bo'lgan eritmaga qancha suv (g) qo'shilsa, uning konsertratsiyasi 10 % bo'ladi?

Yechish.

$$\frac{300}{100}\times 25\% = 3\times 25 = 75.$$

300 ni 25% i $\rightarrow$ 75 ekan.

$$75\times 10 = 750.$$

$$750-300 = 450.$$ **Javob;** 450.

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ABITURIYENT–2010

(2010.8.12)

Funksiyaning aniqlanish sohasini ko'rsating.

$$\oint(x)=\frac{\sqrt[4]{x+1}}{\ln(2-x)}.$$

Yechish.

$\sqrt[4]{x+1}\geqslant 0. \Rightarrow x\geqslant -1.$

$\ln(2-x)\neq 0 \rightarrow x\neq 1.$

$2-x>0. \Rightarrow x<2$. Javob; $[-1;1)\cup(1;2)$.

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ABITURIYENT–2010

(2010.8.13)

Quydagi tenglamaning yechimlari nechita?

$$3^{x^2-x}+3^{2+x-x^2}=10$$

Yechish.

$y=y$.

$$y=3^{x^2-x}+3^{2+x-x^2}=3^{(x^2-x)(2+x-x^2)}.$$

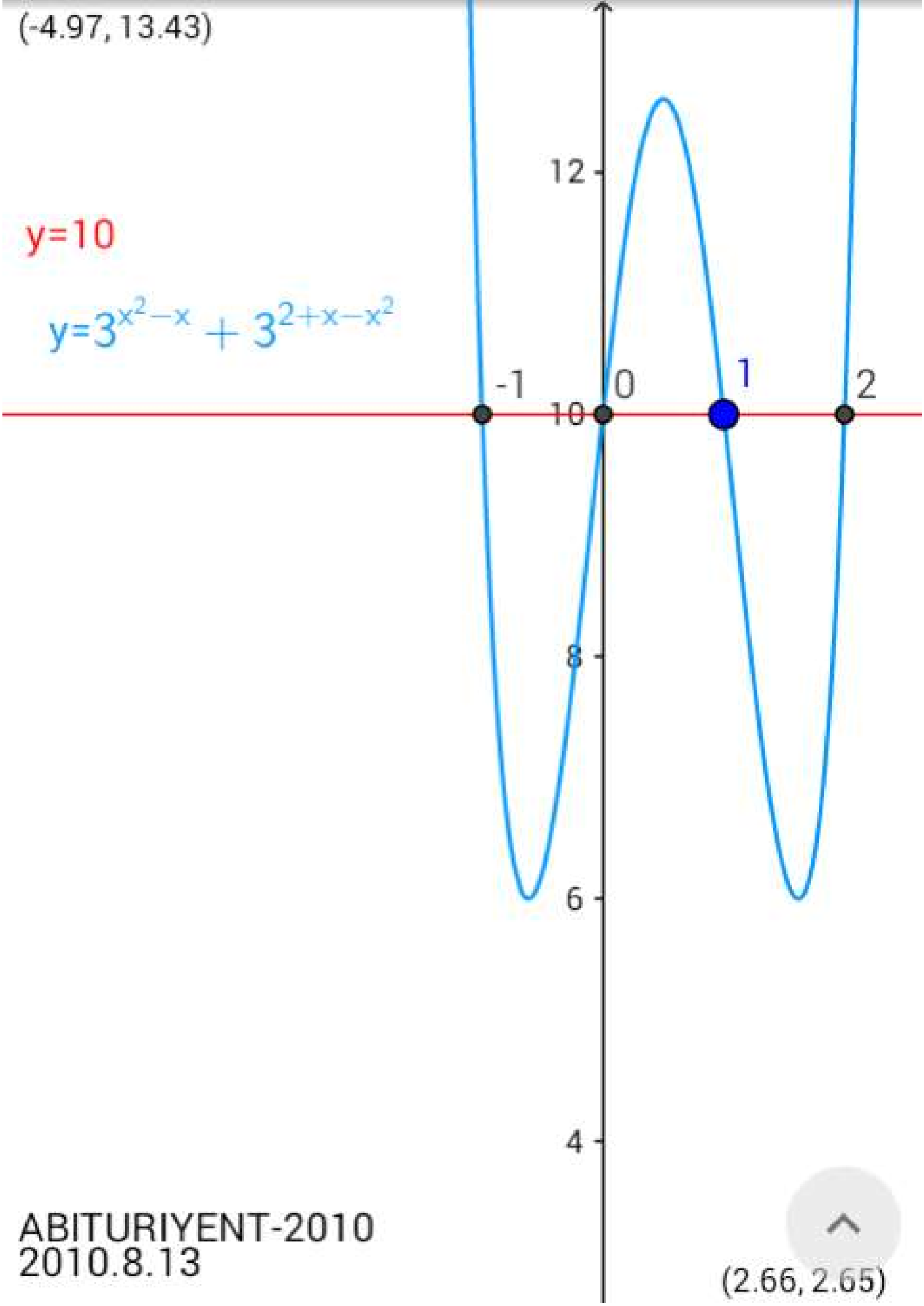
$$(x^2-x)(2+x-x^2)=0.$$

$$x^2-x=0 \Rightarrow x(x-1)=0.\ \ x_1=0.\ \ x_2=1.$$

$$-x^2+x+2=0\Big|^{-1}. \Rightarrow x^2-x-2=0.$$

$$x_{1,2}=\frac{1\pm\sqrt{1+8}}{2}=\frac{1\pm3}{2}. \Rightarrow x_3=2.\ x_4=-1.$$

Javob; 4.



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ABITURIYENT–2010

(2010.8.14)

$\log_3\left(\log_2\left(\log_5 25^4\right)\right)=?$

Yechish.

$\log_3\left(\log_2\left(\log_5 5^8\right)\right).$

$\log_3\left(\log_2\left(8\log_5 5\right)\right).$

$\log_3\left(\log_2 2^3\right)=\log_3\left(3\log_2 2\right)$

$\log_3 3=1.$ Javob; 1.

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ABITURIYENT–2010

(2010.8.15)

Ifodani soddalashtiring.

$$\frac{2\alpha^4+\alpha^3+4\alpha^2+\alpha+2}{2\alpha^3-\alpha^2+\alpha-2}.$$

Yechish.

$$\frac{2\alpha^4+\alpha^3+2\alpha^2+2\alpha^2+\alpha+2}{2\alpha^3+\alpha^2+2\alpha-2\alpha^2-\alpha-2}=\frac{\alpha^2(2\alpha^2+\alpha+2)+(2\alpha^2+\alpha+2)}{\alpha(2\alpha^2+\alpha+2)-(2\alpha^2+\alpha+2)}.$$

$$\frac{(\alpha^2+1)(2\alpha^2+\alpha+2)}{(\alpha-1)(2\alpha^2+\alpha+2)}=\frac{\alpha^2+1}{\alpha-1}.$$ Javob; $\frac{\alpha^2+1}{\alpha-1}$.

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ABITURIYENT–2010

(2010.8.16)

$\oint(2\mathbf{x}+3)=\mathbf{x}^2+1$ bo'lsa, $\oint(3)=?$

Yechish.

$2\mathbf{x}-3=3. \Rightarrow \mathbf{x}=0.$

$\mathbf{x}^2+1=0+1=1.$ Javob; 1.

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ABITURIYENT–2010

(2010.8.17)

Ferrari avtomabil o'zidan 120 km oldinda 170 km/soat tezlik bilan ketayotgan Honda motosikilini 3 soatda quvib o'tishi uchun qanday tezlikda harakatlanish kerak?

Yechish.

1) $\frac{120}{3}=\mathbf{v}-170.\ \ \mathbf{x}=210.$

2) $170\times3+120=3\mathbf{x}.\Rightarrow 3\mathbf{x}=630.\ \ \mathbf{x}=210.$

Javob; 210 km/soat.

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ABITURIYENT–2010

(2010.8.18)

Quydagi tengliklardan qaysilari ayniyat?

1) $\sin(\frac{\pi}{2}-\alpha)=-\cos(\pi-\alpha)$.

2) $\cos(\frac{3\pi}{2}+\alpha)=\sin(3\pi+\alpha)$.

3) $\operatorname{tg}(\pi+\alpha)=-\operatorname{ctg}(\frac{3\pi}{2}-\alpha)$.

4) $\operatorname{ctg}(\frac{5\pi}{2}-\alpha)=\operatorname{tg}(\pi+\alpha)$.

Yechish.

1) $\cos\alpha=\cos\alpha$.

2) $\sin\alpha=-\sin\alpha$

3) $\operatorname{tg}\alpha=-\operatorname{tg}\alpha$.

4) $\operatorname{tg}\alpha=\operatorname{tg}\alpha$. Javob; 1;4.

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ABITURIYENT–2010

(2010.8.19)

Soddalashtiring.

$$\frac{\sin^4 x-\cos^4 x}{\sin^3 x\cos x+\cos^3 x\sin x}.$$

Yechish.

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

$$\frac{-2(\cos^2 x-\sin^2 x)}{2\sin x\cos x}=-2\times\frac{\cos 2x}{\sin 2x}=-2\operatorname{ctg}2x.$$ Javob; $-2\operatorname{ctg}2x$.

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ABITURIYENT–2010

(2010.8.20)

Tengsizlikni yeching. $(0\leqslant\square\leqslant\pi)$

$$\operatorname{tg}\alpha-\frac{1}{\sqrt{3}}\leqslant\frac{1}{\sqrt{3}\operatorname{tg}\alpha}-1.$$

Yechish.

$$\alpha\neq 0;\frac{\pi}{2};\pi.$$

$$\frac{\sqrt{3}\operatorname{tg}\alpha-1}{\sqrt{3}}\leqslant\frac{1-\sqrt{3}\operatorname{tg}\alpha}{\sqrt{3}\operatorname{tg}\alpha}.\Rightarrow\frac{\operatorname{tg}\alpha(\sqrt{3}\operatorname{tg}\alpha-1)}{\sqrt{3}\operatorname{tg}\alpha}\leqslant\frac{1-\sqrt{3}\operatorname{tg}\alpha}{\sqrt{3}\operatorname{tg}\alpha}.$$

$$\sqrt{3}\operatorname{tg}^2\alpha-\operatorname{tg}\alpha\leqslant 1-\sqrt{3}\operatorname{tg}\alpha.$$

$$\sqrt{3}\operatorname{tg}^2\alpha-\operatorname{tg}\alpha+\sqrt{3}\operatorname{tg}\alpha-1\leqslant 0.$$

$$\operatorname{tg}\alpha(\sqrt{3}\operatorname{tg}\alpha-1)+(\sqrt{3}\operatorname{tg}\alpha-1)\leqslant 0.$$

$$(\operatorname{tg}\alpha+1)(\sqrt{3}\operatorname{tg}\alpha-1)\leqslant 0.\quad\left(0;\frac{\pi}{2}\right)$$

$$\begin{cases}\operatorname{tg}\alpha+1\leqslant 0\\ \sqrt{3}\operatorname{tg}\alpha-1\leqslant 0\end{cases}\quad\begin{cases}\operatorname{tg}\alpha+1\geqslant 0\\ \sqrt{3}\operatorname{tg}\alpha-1\geqslant 0\end{cases}.$$

$$\begin{cases}\operatorname{tg}\alpha\leqslant -1\\ \operatorname{tg}\alpha\leqslant\frac{1}{\sqrt{3}}\end{cases}\Rightarrow\begin{cases}\alpha\leqslant-\frac{\pi}{4}\\ \alpha\leqslant\frac{\pi}{6}\end{cases}.$$

$$-\frac{\pi}{4}\notin\left(0;\frac{\pi}{2}\right).\quad\left(0;\frac{\pi}{6}\right].\quad\left(\frac{\pi}{2};\pi\right)\Rightarrow\left(\frac{\pi}{2};\frac{3\pi}{4}\right].$$

Javob; $\left(0;\frac{\pi}{6}\right]\cup\left(\frac{\pi}{2};\frac{3\pi}{4}\right].$

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ABITURIYENT−2010

(2010.8.21)

$\oint(x)=\frac{Cos(sin5x)}{5}$ funksiyaning

hosilasini toping.

Yechish.

$\frac{1}{5}\times\frac{d}{dx}Cos(sin5x).\quad -\frac{1}{5}\times sin(sin5x)cos5x\times 5.$

$-Cos5x\times sin(sin5x).$ Javob; $-Cos5x\times sin(sin5x).$

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ABITURIYENT–2010

(2010.8.22)

Tenglamani yeching.

$$\int_{-t}^{t}(4x+10)dx=100.$$

Yechish.

$$2x^2+10x\Big|_{-t}^{t}=100.$$

$$2t^2+10t-2t^2+10t=100.$$

$$20t=100. \Rightarrow t=\frac{100}{20}=5.$$ Javob; 5.

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ABITURIYENT–2010

(2010.8.23)

Soddalashtiring.

$$\left(\frac{a+b}{\sqrt[3]{a^2}-\sqrt[3]{b^2}}+\frac{\sqrt[3]{ab^2}-\sqrt[3]{a^2b}}{\sqrt[3]{a^2}-2\sqrt[3]{ab}+\sqrt[3]{b^2}}\right):\left(\sqrt[6]{a}-\sqrt[6]{b}\right).$$

Yechish.

$$\left(\frac{\sqrt[3]{a^3}+\sqrt[3]{b^3}}{\left(\sqrt[3]{a}-\sqrt[3]{b}\right)\left(\sqrt[3]{a}+\sqrt[3]{b}\right)}+\frac{\sqrt[3]{ab}\left(\sqrt[3]{b}-\sqrt[3]{a}\right)}{\left(\sqrt[3]{b}-\sqrt[3]{a}\right)^2}\right)\times\frac{1}{\sqrt[3]{a^2}-\sqrt[3]{b^2}}.$$

$$\left(\frac{\left(\sqrt[3]{a}+\sqrt[3]{b}\right)\left(\sqrt[3]{a^2}-\sqrt[3]{ab}+\sqrt[3]{b^2}\right)}{\left(\sqrt[3]{a}-\sqrt[3]{b}\right)\left(\sqrt[3]{a}+\sqrt[3]{b}\right)}-\frac{\sqrt[3]{ab}}{\sqrt[3]{a}-\sqrt[3]{b}}\right)\times\frac{1}{\sqrt[3]{a^2}-\sqrt[3]{b^2}}.$$

$$\frac{\sqrt[3]{a^2}-\sqrt[3]{ab}+\sqrt[3]{b^2}-\sqrt[3]{ab}}{\sqrt[3]{a}-\sqrt[3]{b}}\times\frac{1}{\sqrt[3]{a^2}-\sqrt[3]{b^2}}=\frac{\left(\sqrt[3]{a}-\sqrt[3]{b}\right)^2}{\left(\sqrt[3]{a}-\sqrt[3]{b}\right)\left(\sqrt[6]{a}-\sqrt[6]{b}\right)}.$$

$$\frac{\sqrt[3]{a}-\sqrt[3]{b}}{\sqrt[6]{a}-\sqrt[6]{b}}=\frac{\left(\sqrt[6]{a}-\sqrt[6]{b}\right)\left(\sqrt[6]{a}+\sqrt[6]{b}\right)}{\sqrt[6]{a}-\sqrt[6]{b}}=\sqrt[6]{a}+\sqrt[6]{b}.$$ Javob; $\sqrt[6]{a}+\sqrt[6]{b}$.

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ABITURIYENT–2010

(2010.8.24)

Qo'shni burchaklardan biri bu burchaklar ayirmasidan 4 martta kichik. Shu burchaklar ayirmasini toping.

Yechish.

$$\frac{x-y}{4}=y. \Rightarrow x=5y.$$

$$x+y=180^\circ.$$

$$6y=180^\circ. \Rightarrow y=30^\circ.$$

$$x+30^\circ=180^\circ. \Rightarrow x=150^\circ.$$

$x-y=150^\circ-30^\circ=120^\circ.$ Javob; 120°.

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ABITURIYENT–2010

(2010.8.25).

To'g'ri burchakli uchburchakning gipotenuzaga tushirilgan balandligi 9 ga teng. Shu balandlik bilan kichik katet orasidagi burchak 30° ga teng. Uchburchakning katta katetini toping

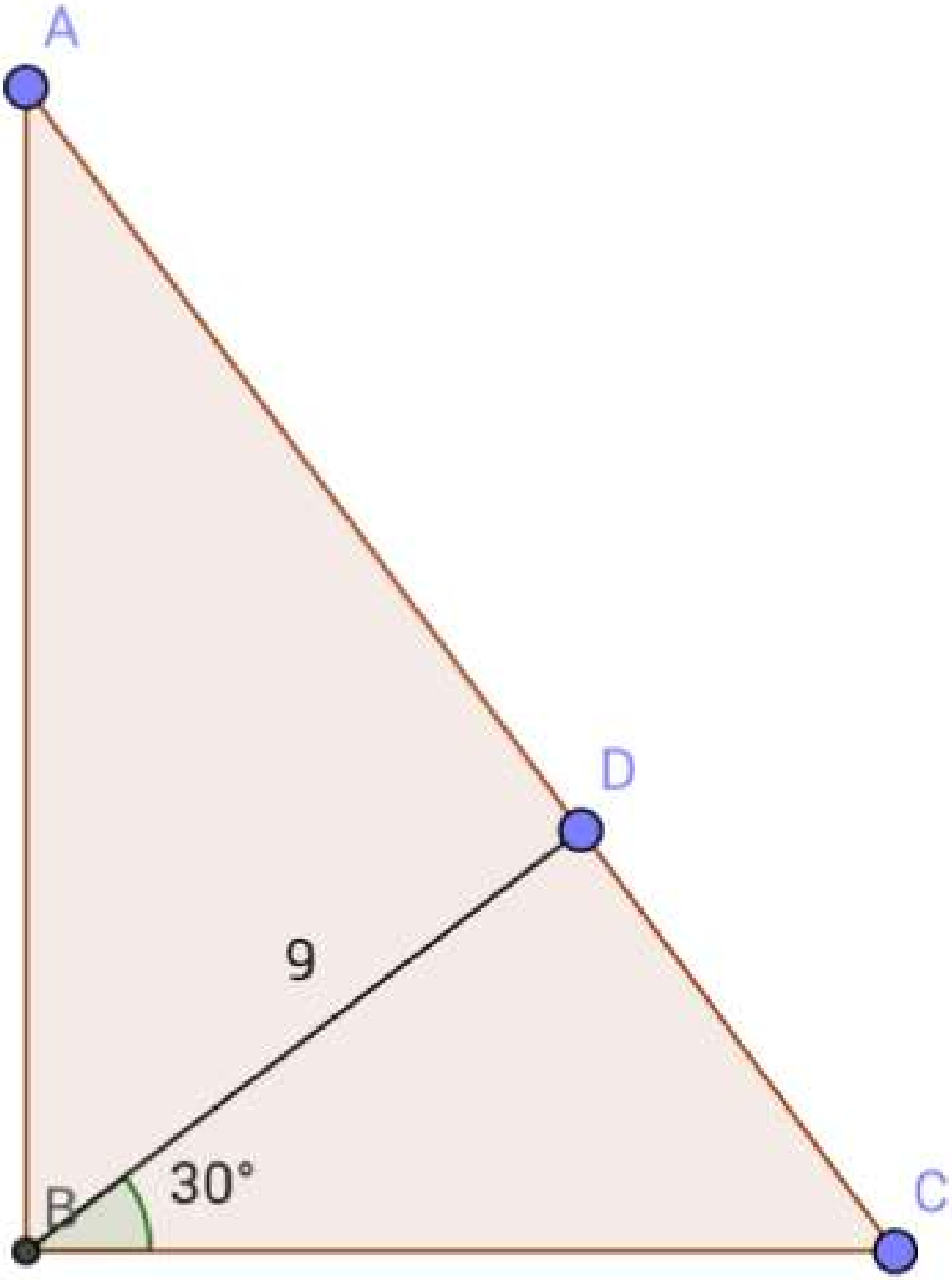
Yechish;

$$\sqrt{4a^2-a^2}=a\sqrt{3}=9.\quad a=\frac{9}{\sqrt{3}}=3\sqrt{3}.$$

$$b=\frac{9^2}{a}=\frac{81}{3\sqrt{3}}=\frac{27\sqrt{3}}{3}=9\sqrt{3}.$$

$$c=\sqrt{3\times 81+81}=\sqrt{81(1+3)}.$$

$\sqrt{81\times 4}=9\times 2=18$. Javob; 18.



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ABITURIYENT–2010

(2010.8.26).

ABC uchburchakning yuzi $15\,\text{sm}^2$ $|AB|=|AD|$, $|BD|=2\bullet|DC|=4\,\text{sm}$ bo'lsa, $|AD|$ nechi sm?

Yechish;

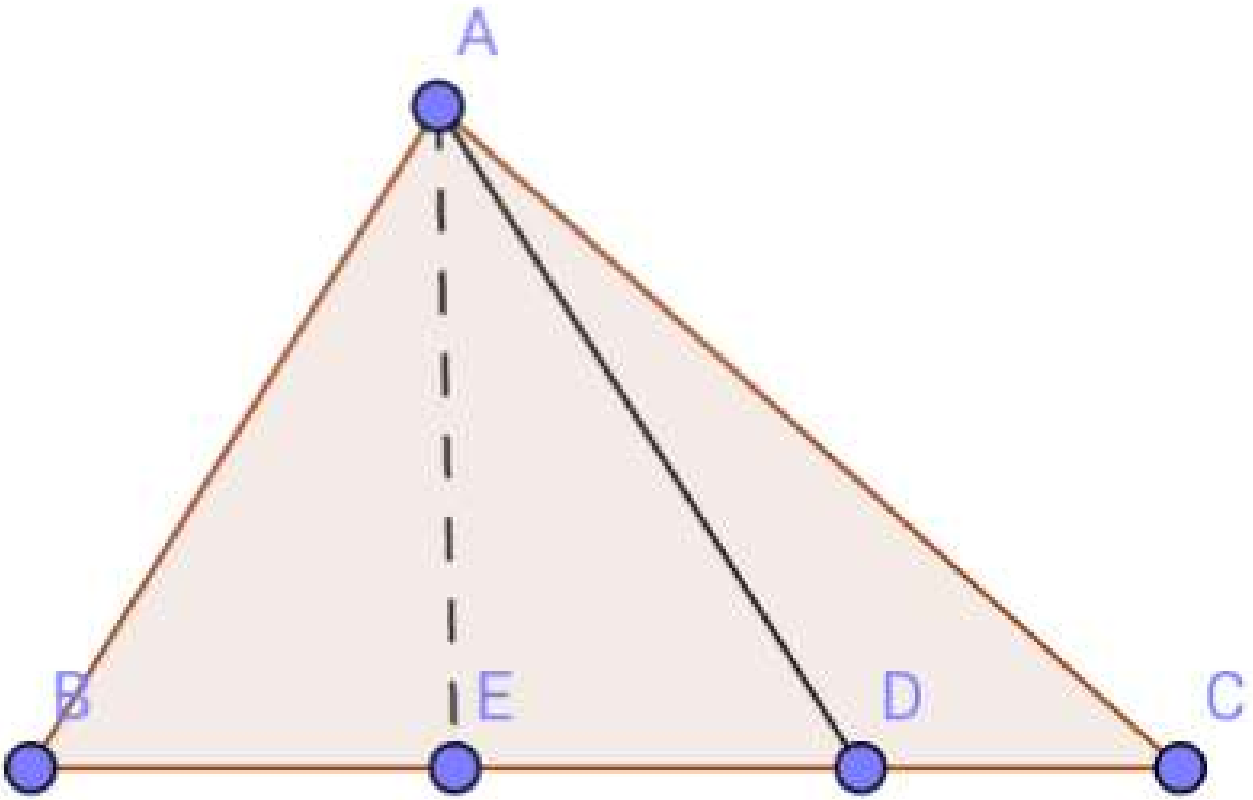
$$S_{ABC}=\frac{BC}{2}\times h_{BE}=15.\ \ BC=6.$$

$$\frac{6}{2}\times h_{BE}=15.\ \ \Rightarrow h_{BE}=5.$$

$$AB^2=h^2+BE^2.$$

$$AD=AB.$$

$$AB=\sqrt{25+4}=\sqrt{29}.\quad \text{Javob; } \sqrt{29}.$$



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ABITURIYENT–2010

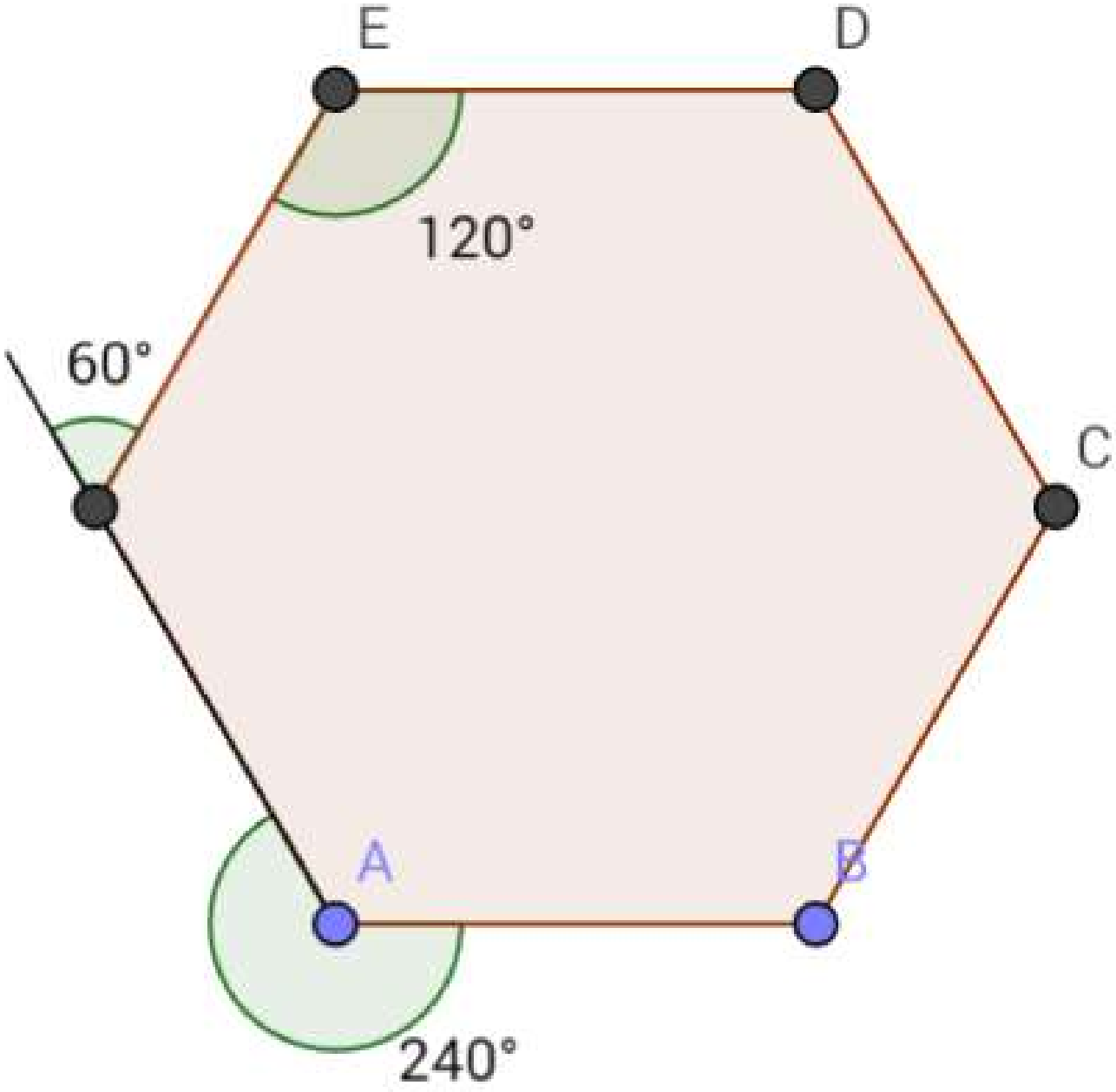
(2010.8.27).

Har bir tashqi burchagi 60° ga teng bo'lgan qavariq ko'pburchakning ichki burchaklar yig'indisini toping.

Yechish;

$180^\circ - 60^\circ = 120^\circ$.

$\frac{360^\circ}{60^\circ} \times 120^\circ = 720^\circ$. Javob; 720°.



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ABITURIYENT–2010

(2010.8.28).

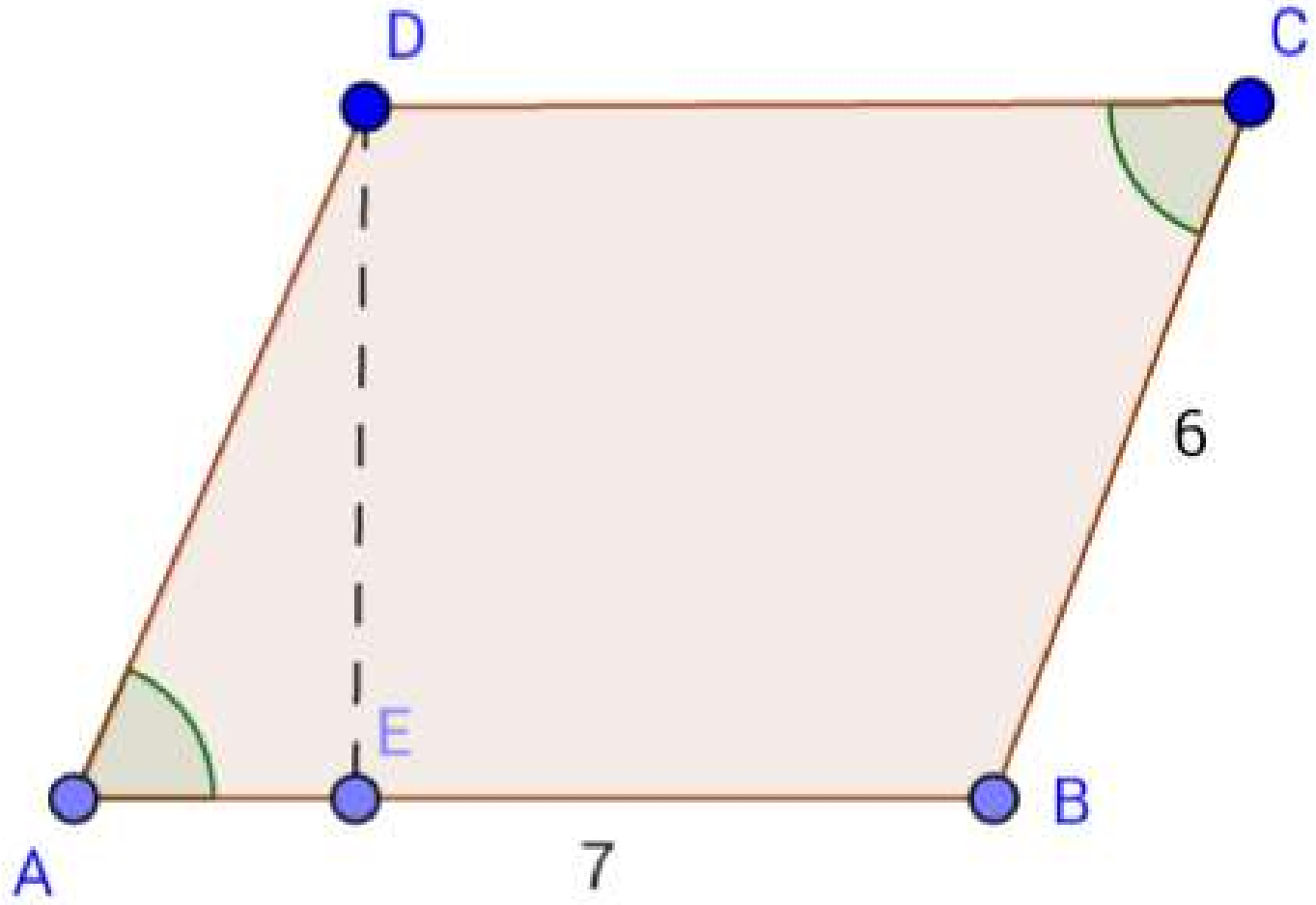
Tomonlari 6 va 7 teng bo'lgan parallelogramning yuzi 21 ga teng. Parallelogrammning o'tkir burchagini toping.

Yechish;

$S=ab\times\sin\alpha$.

$21=6\times7\sin\alpha$.

$\sin\alpha=\frac{21}{42}=\frac{1}{2}=30^\circ$. Javob; 30°.



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ABITURIYENT–2010

(2010.8.29).

Markazi O nuqtada bo'lgan aylanada AC diametr o'tkazilgan. DB vatar AC diametrni P nuqtada kesib o'tadi. DP=PB, PA=8, PC=4,5 bo'lsa, AB vatarni uzunligini toping.

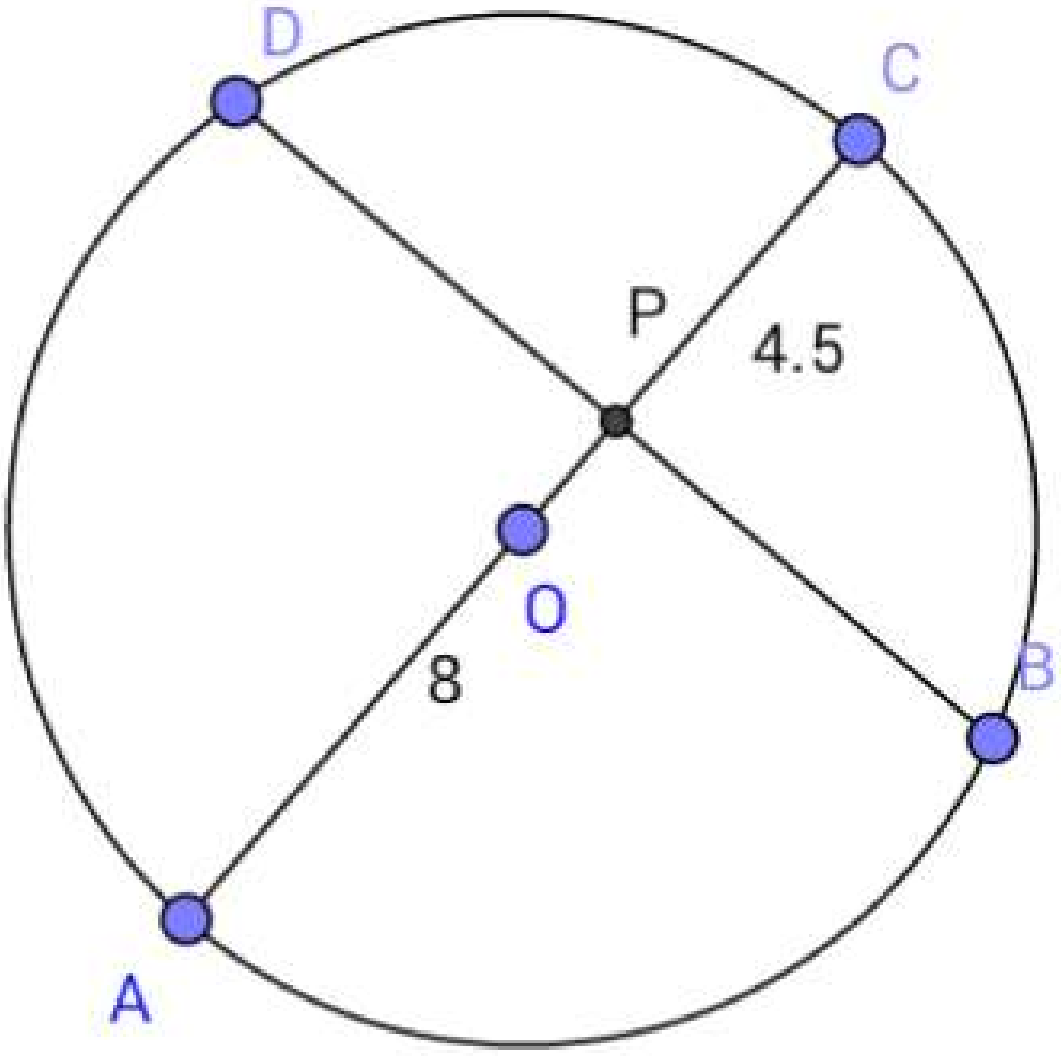
Yechish;

PA=8.

PC=4,5.

$DP=\sqrt{8\times 4,5}=6.$

$AB=\sqrt{8^2+6^2}=10.$ Javob; 10.



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ABITURIYENT–2010

(2010.8.30).

Teng yonli trapetsiyaning perimetri 40 ga, unga ichki chizilgan aylananing radiusi 3 ga teng. Shu trapetsiyaning yuzini toping.

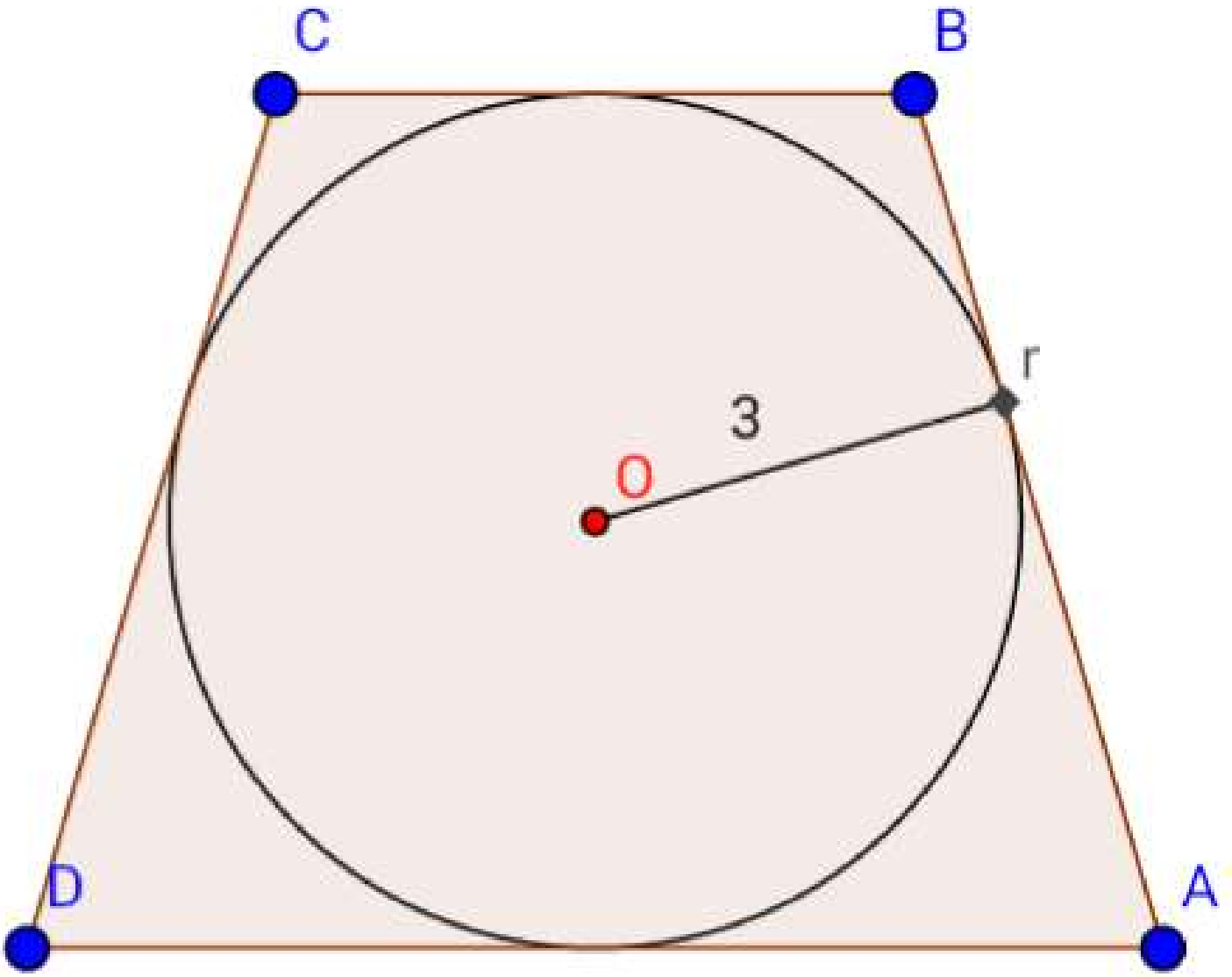
Yechish;

$\frac{40}{2}=20. \Rightarrow a+b=10+10.$

$a_1+b_1=2c. \Rightarrow c=\frac{20}{2}=10.$

$h=2r=2\times 3=6.$

$S=c\times h=10\times 6=60.$ Javob; 60.



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(2010.8.31).

Tekkislikka bir nuqtadan og'ma va perependikular tushirilgan. Og'ma bilan tekislik orasidagi burchak $\arccos\frac{12}{13}$ ga teng. Og'maning uzunligi 39 ga teng bo'lsa, nuqtadan tekkislikkacha bo'lgan masofani toping.

Yechish;

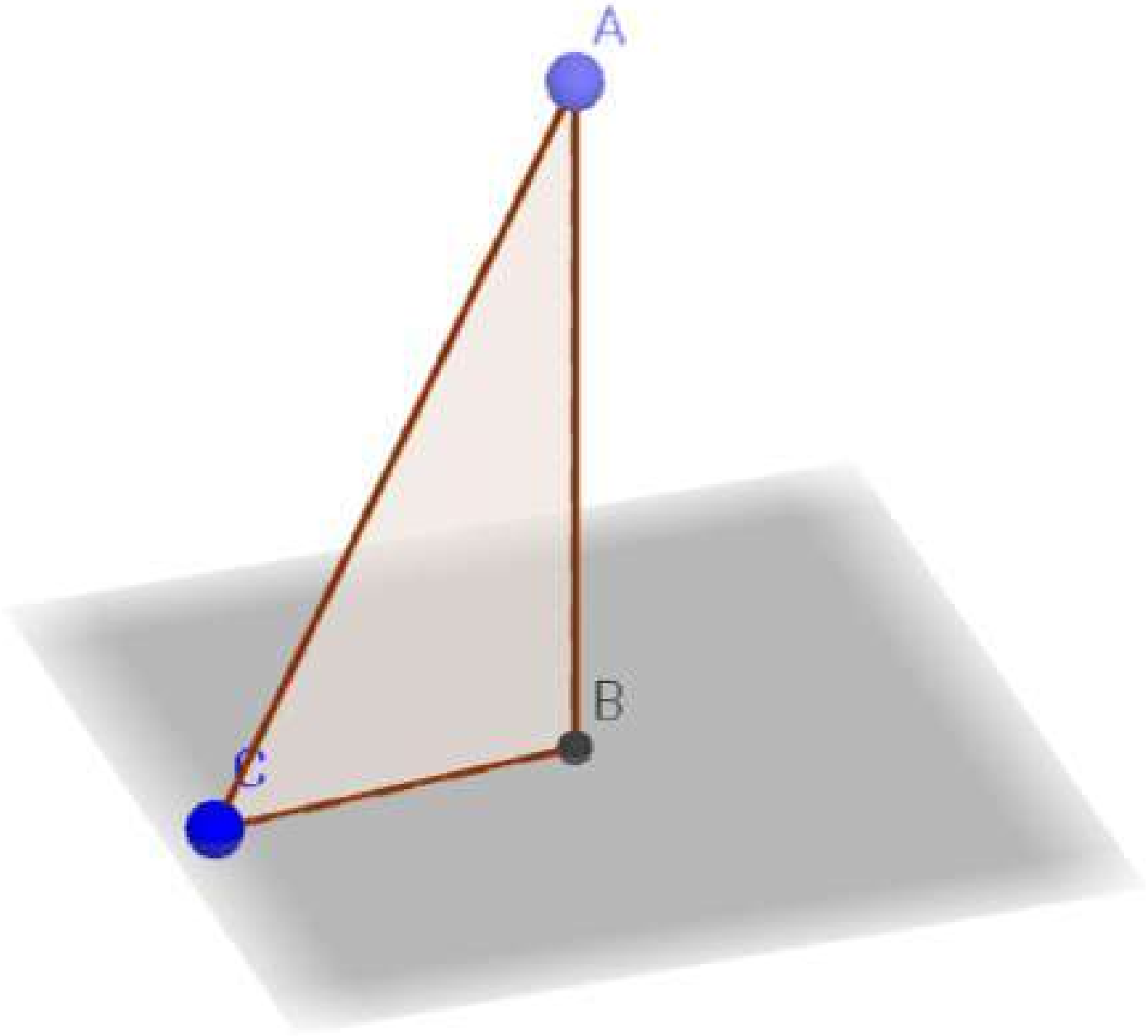
$l=39$.

$h=l\times\sin x$.

$$h=39\times\sin\left(\arccos\left(\frac{12}{13}\right)\right).$$

$$39\times\sqrt{1-\frac{144}{169}}=39\times\frac{5}{13}=3\times5=15.$$

Javob; 15.



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ABITURIYENT–2010

(2010.8.32)

Markazi $\left(-2;\frac{1}{3}\right)$ nuqtada joylashgan va radiusi 4 ga teng bo'lgan aylana tenglamasini ko'rsating.

Yechish;

$(x-a)^2+(y-b)^2=R^2.$

$a=x.\ b=y.$

$x_1=-2.\ y_1=\frac{1}{3}.$

$$(-2-x)^2+\left(\frac{1}{3}-y\right)^2=4^2.$$

$$4+4x+x^2+\frac{1}{9}-\frac{2}{3}y+y^2=16.$$

$$x^2+y^2+4x-\frac{2}{3}y=16-4-\frac{1}{9}.$$

$$x^2+y^2+4x-\frac{2}{3}y-\frac{107}{9}=0.$$

$$9x^2+9y^2+36x-6y-107=0.$$

Javob; $9x^2+9y^2+36x-6y-107=0.$

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ABITURIYENT–2010

(2010.8.33)

m ning qanday qiymatida

$\vec{\alpha}(3;m^2+1;1)$ va $\vec{b}(2m-1;3;3)$ vektorlar perependikular bo'ladi?

Yechish;

$$\vec{\alpha b}=(x_1x_2)+(y_1y_2)+(z_1z_2).$$

$$3(2m-1)+3(m^2+1)+3.$$

$$6m-3+3m^2+3+3=0\Big|^3$$

$$m^2+2m+1=0.$$

$$(m-1)^2=0. \Rightarrow m=-1.$$ Javob; -1.

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ABITURIYENT–2010

(2010.8.34).

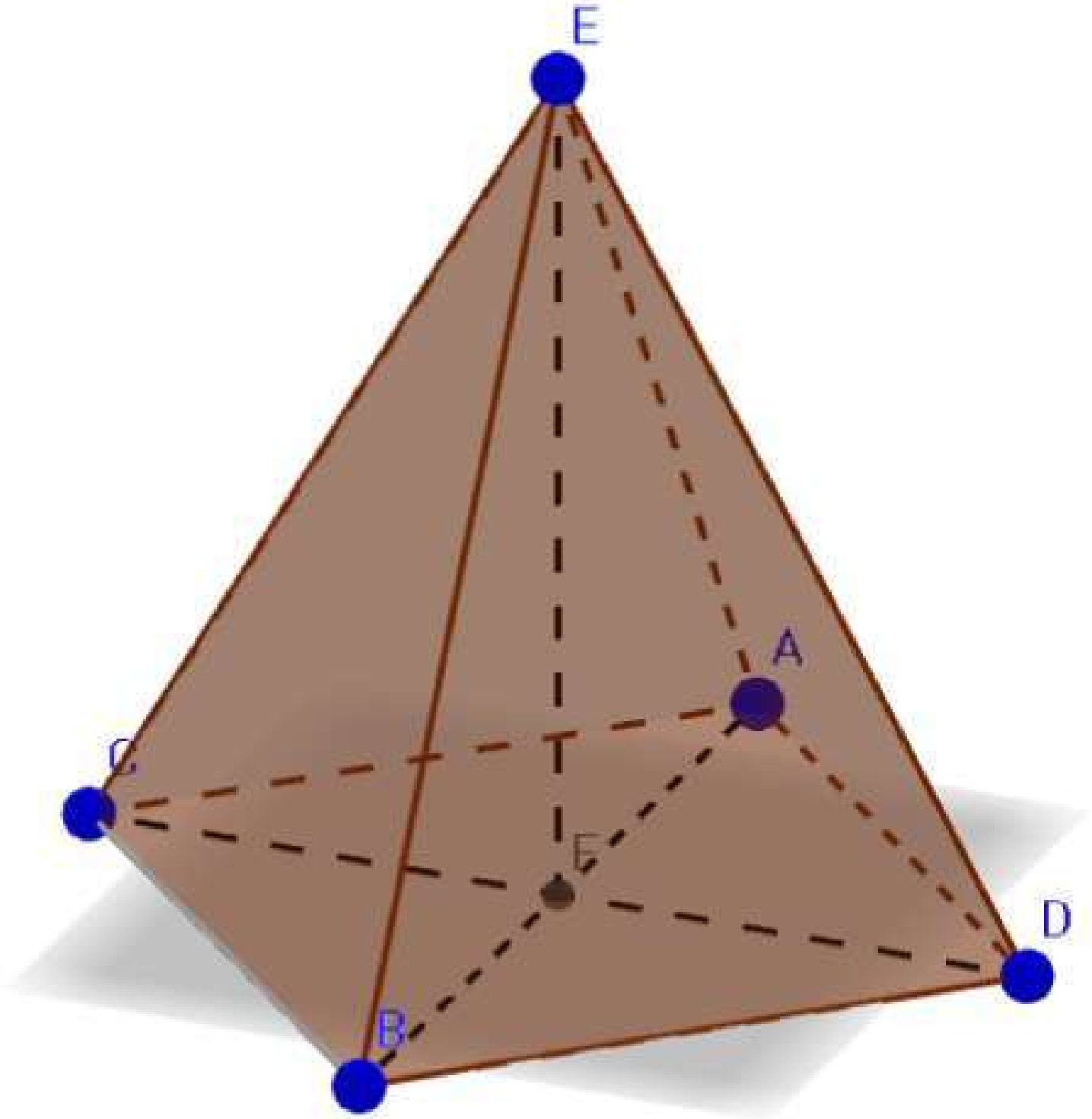
Asosining yuzi 52 ga teng bo'lgan muntazam to'rtburchakli peramidaning apofemasi 7 ga teng. Peramida hajmini toping.

Yechish;

$$S_{asos}=52. \Rightarrow a=\sqrt{52} \Rightarrow x=\frac{\sqrt{52}}{2}.$$

$$h=\sqrt{49-\frac{52}{4}}=\sqrt{36}=6.$$

$$V=\frac{1}{3}\times S_{asos}\times h=\frac{1}{3}\times 52\times 6=104.$$ Javob; 104.



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ABITURIYENT–2010

(2010.8.35).

To'g'ri konusning asosi radiusi a marta, balandligi b marta kattalashsa hajmi 6 marta kattalashadi, shunga ko'ra b ning qiymati nimaga teng bo'ladi?

Yechish;

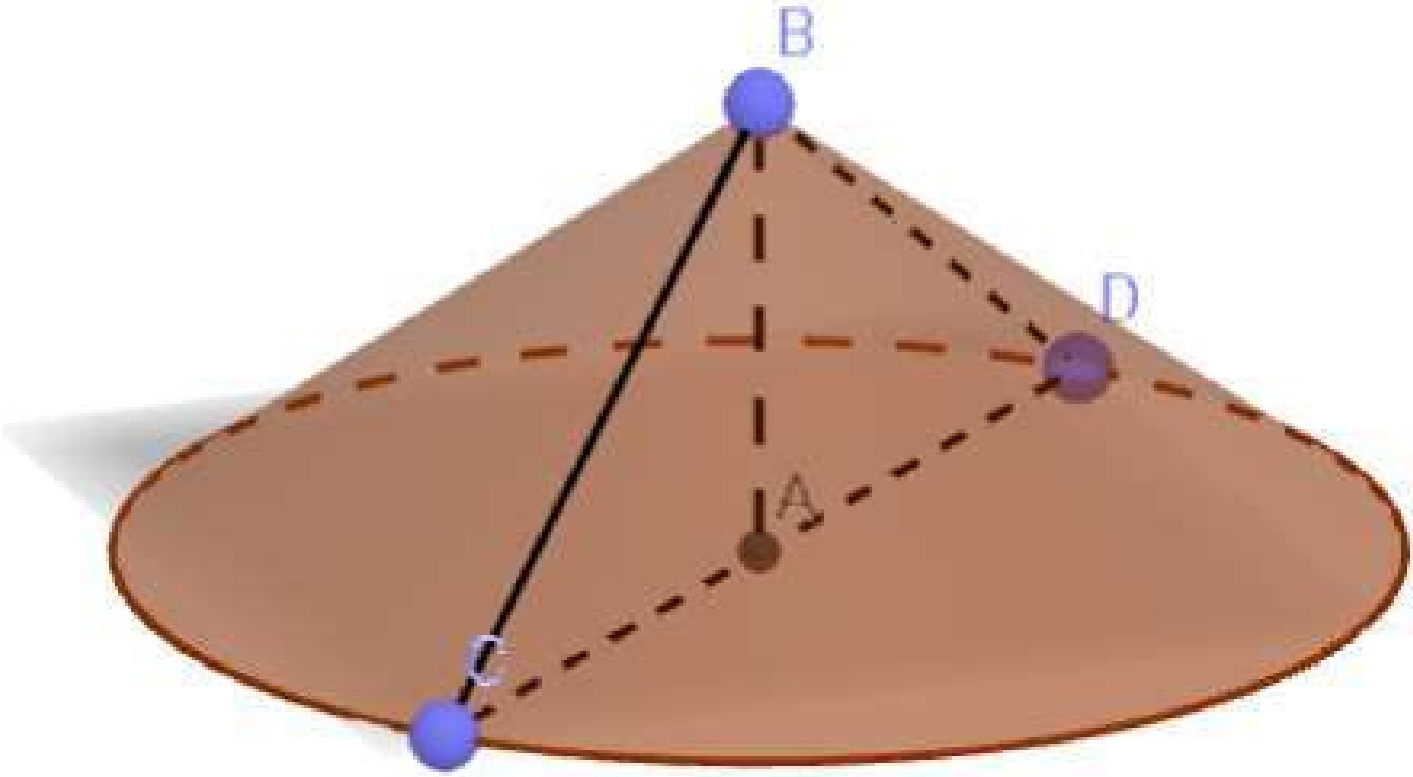
$H=r.$

$$V=\frac{1}{3}H\pi r^2.$$

$$6V=\frac{1}{3}(H\times b)\pi\times(ar)^2.$$

$$6V=a^2b\times\frac{1}{3}H\pi r^2.$$

$$6=a^2b.\Rightarrow\ b=\frac{6}{a^2}.\quad \text{Javob; } \frac{6}{a^2}.$$



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ABITURIYENT–2010

(2010.8.36)

Ushbu 31323334.....7475 sonining raqamlar yig'indisini toping.

Yechish;

$3\times9=27.$

$7\times6=42.$

$1+2+3+4+5=15.$

$27|45$ $60+40+50+42+27=219.$

$40|45$ $4\times45+15=195.$

$50|45$ $219+195=414.$

$60|45$ Javob; 414.

$42|15.$