PDM - VIŠA RATEINA - RJEŠENJA

① $z = (1-3i)^3 = 1 - 9i + 27i^2 - 27i^3 = 1 - 9i \quad 27 + 27i =$

$(a-b)^3 = a^3 - 3a^2b + 3ab^2 - b^3$

$i^2 = -1, \quad i^3 = i^2 \cdot i = -i$

$= -26 + 18i$

$\mathrm{Re}\, z = -26$

(B)

② $x^2 + y^2 + 6x - 14y - 3 = 0$

$x^2 + 6x + 3^2 + y^2 - 14y + 7^2 = 3 + 9 + 49$

$(x+3)^2 + (y-7)^2 = 61$

$(x-p)^2 + (y-q)^2 = r^2$

$A(x_1, y_1)$, $B(x_2, y_2)$ $\quad |AB| = \sqrt{(x_1-x_2)^2 + (y_1-y_2)^2}$

$S(-3, 7)$ $\quad |SO| = \sqrt{(-3)^2 + 7^2} = \sqrt{58}$

ISHODIŠTE: $O(0,0)$

(A)

③ $\left[\left(\frac{a}{b} - \frac{b}{a}\right) : (a+b) + \frac{a}{b} - 1\right] \cdot \frac{b}{1+a} =$

$= \left(\frac{(a+b)(a-b)}{ab} \cdot \frac{1}{a+b} + \frac{a}{b} - 1\right) \cdot \frac{b}{1+a} =$

$= \frac{a-b+a^2-ab}{ab} \cdot \frac{b}{1+a} = \frac{(a-b)+a(a-b)}{a\cdot(1+a)} =$

$= \frac{(a-b)(a+1)}{a\cdot(1+a)} = \frac{a-b}{a}$ (A)

④ 20 RADNIKA → 30 DANA

$(20 + 20 \cdot \frac{1}{5}$ → x)

24 RADNIKA → x DANA

$$\frac{20}{24} = \frac{x}{30}$$

$$24x = 600 \Rightarrow x = 25$$ ©

⑤ $3x^2 + kx - 5 = 0$

$x_1 = 1,\ x_2 = -\frac{5}{3}$

$3 \cdot 1^2 + k \cdot 1 - 5 = 0$

$k = 5 - 3$

$k = 2$

$3 \cdot (-\frac{5}{3})^2 + k \cdot (-\frac{5}{3}) - 5 = 0$

$-\frac{5}{3}k = 5 - \frac{25}{3} \quad | \cdot (-\frac{3}{5})$

$k = 2$

©

⑥ $5 \cdot 8^{3x+1} = 10 \quad | : 5$

$(2^3)^{3x+1} = 2^1$

$9x + 3 = 1 \quad | : 9$

$x = -\frac{2}{9} \in \langle -1, 3]$ ©

⑦ $\log_3 9a + \log_3 3a^2 =$

$= \log_3 9 + \log_3 a + \log_3 3 + \log_3 a^2 =$

$= 2 + \log_3 a + 1 + 2\log_3 a = 3 + 3\log_3 a$

Ⓐ

(8) x - NUMĂRUL RAȚIONAL

x = ȚENE + TUȘKARCI

$x = \bar{t} + \bar{t} + 252$

$\bar{t} = 35\%\ x = \frac{35}{100} x = \frac{7}{20} x$

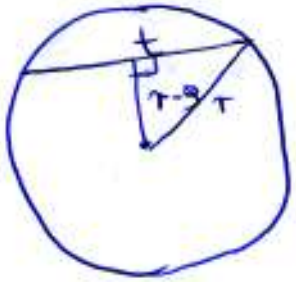
$x = 2\bar{t} + 252$

$x = 2 \cdot \frac{7}{20} x + 252$

$\frac{3}{10} x = 252 \Rightarrow x = 870$

(C)

(9)



$t = 30\ cm$

$r^2 = \left(\frac{t}{2}\right)^2 + (r-9)^2$

$r^2 = 15^2 + r^2 - 18r + 81$

$18r = 225 + 81 \quad | : 18$

$r = 17\ cm$

(D)

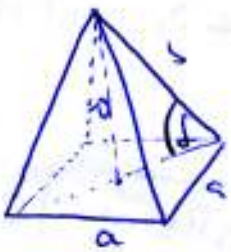
(10) $\varphi > 0 \quad 0 \le \varphi < 90°$

$\sin\varphi = a$

$\cos\varphi = \oplus\sqrt{1-\sin^2\varphi} = \sqrt{1-a^2}$

(B)

(11)

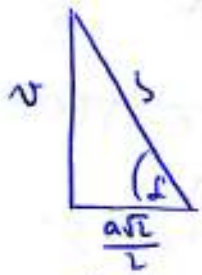


$v = 10\ cm$

$\delta = 65°$

$O = ?$

$tg\,\delta = \frac{v}{\frac{a\sqrt{2}}{2}}$



DIN DIAGONALE BAZE

$\frac{2v}{a\sqrt{2}} = tg\,\delta$

$a\sqrt{2} = \frac{2v}{tg\,\delta}$

$a = \frac{2 \cdot v}{\sqrt{2}\,tg\,\delta} = \frac{2 \cdot 10}{\sqrt{2} \cdot tg\,65°} = 6.59459\ cm$

$s = \sqrt{v^2 + \left(\frac{a\sqrt{2}}{2}\right)^2} = \sqrt{v^2 + \frac{a^2}{2}}$

$s = 11.03378\ cm$

$P_b = 34.719146\ cm^2$

$s = \frac{a+2s}{2} = 14.331975\ cm$

$P_b = \sqrt{s(s-a)(s-s)(s-s)}$

$B = a^2 = 43.488566\ cm^2$

$O = B + 4 \cdot P_b = 182.4\ cm^2$

(C)

(12) $\operatorname{tg} x = 3 \qquad \pi < x < \frac{3\pi}{2}$

$$\operatorname{tg}^2 x = \frac{\sin^2 x}{\cos^2 x}$$

$$\operatorname{tg}^2 x = \frac{\sin^2 x}{1-\sin^2 x}$$

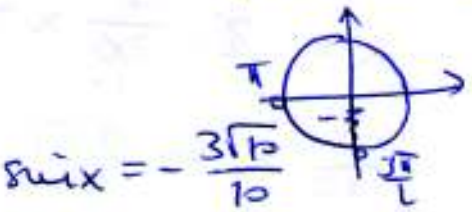
$$9 = \frac{\sin^2 x}{1-\sin^2 x}$$

$$9 - 9\sin^2 x = \sin^2 x$$

$$10\sin^2 x = 9$$

$$\sin^2 x = \frac{9}{10} \quad |\sqrt{}$$

$$\sin x = \pm\frac{\sqrt{9}}{\sqrt{10}} = \ominus\frac{3\sqrt{10}}{10}$$



$$\sin x = -\frac{3\sqrt{10}}{10}$$

(B)

(13) $2x^2 - 8x + 15 = 0$

VIETEOVE FORMULE: $x_1 + x_2 = -\frac{b}{a} \qquad x_1 \cdot x_2 = \frac{c}{a}$

$$x_1^2 + x_2^2 = (x_1+x_2)^2 - 2x_1x_2 =$$

$$= \left(-\frac{-8}{2}\right)^2 - 2 \cdot \frac{15}{2} =$$

$$= 16 - 15 = 1$$

(D)

(14) $a_1 - a_2 = 8$

$P_1 - P_2 = 16$

$P_1 + P_2 = ?$

$4a_1 - 4a_2 = 8 \;/:4 \Rightarrow a_1 - a_2 = 2$

$a_1 = 2 + a_2$

$a_1^2 - a_2^2 = 16$

$(2+a_2)^2 - a_2^2 = 16$

$4 + 4a_2 + a_2^2 - a_2^2 = 16$

$a_2 = 3$

$a_1 = 5$

$P_1 + P_2 = a_1^2 + a_2^2 = 9 + 25 = 34$

(B)

(15) $a = 5\text{ cm}$

$s = 6\text{ cm}$

$P = 12\text{ cm}^2$

$c = ?$

$$P = \frac{1}{2} a s \sin\gamma \Rightarrow \gamma = \sin^{-1}\frac{2P}{as}$$

$$\gamma = 53°\,7'\,48''$$

$$c^2 = a^2 + s^2 - 2as\cos\gamma$$

$$c^2 = 25 + 36 - 2 \cdot 5 \cdot 6 \cdot \cos 53°\,7'\,48''$$

$$c = 5 \;//$$

(A)

(16) $\operatorname{ctg} x = a$

$$\frac{\sin x - \cos x \mid :\sin x}{\cos x + \sin x \mid :\sin x} = \frac{1 - \frac{\cos x}{\sin x}}{1 + \frac{\cos x}{\sin x}} = \frac{1 - \operatorname{ctg} x}{1 + \operatorname{ctg} x} = \frac{1-a}{1+a}$$

(17) $3x - 4y + 2 = 0 \Rightarrow y = \frac{3}{4}x + \frac{1}{2} \Rightarrow k_1 = \frac{3}{4}$

$3x + 4y + 3 = 0 \Rightarrow y = -\frac{3}{4}x - 1 \Rightarrow k_2 = -\frac{3}{4}$

$\varphi = ?$

$$\operatorname{tg}\varphi = \left|\frac{k_2 - k_1}{1 + k_1 k_2}\right| = \left|\frac{-\frac{3}{4} - \frac{3}{4}}{1 - \frac{3}{4}\cdot\frac{3}{4}}\right| = \left|\frac{-\frac{3}{2}}{\frac{7}{16}}\right|$$

$$\operatorname{tg}\varphi = \frac{24}{7} \Rightarrow \varphi = \operatorname{tg}^{-1}\frac{24}{7} = 73°\,44'\,23''$$

(18) $x^2 + y^2 - 14x - 8y + 40 = 0 \ldots k$ $\quad 3^2 + y^2 - 14\cdot 3 - 8y + 40 = 0$

$T(3, y<4)$, $T \in k$ $\quad y^2 - 8y + 7 = 0$

$$y_{1/2} = \frac{8 \pm \sqrt{64 - 28}}{2}$$

$$x^2 - 14x + 7^2 + y^2 - 8y + 4^2 = -40 + 49 + 16$$

$$y_{1/2} = \frac{8 \pm 6}{2}$$

$$(x-7)^2 + (y-4)^2 = 25$$

$y_1 = 7 \quad \boxed{y_2 = 1}$

$S(7, 4)$, $r^2 = 25$

$T(3, 1)$

$$(x_1 - p)(x - p) + (y_1 - q)(y - q) = r^2$$

$$(3-7)(x-7) + (1-4)(y-4) = 25$$

$$-4x + 28 - 3y + 12 = 25$$

$t \ldots \quad 4x - 3y - 15 = 0 \quad$ ili $\quad y = \frac{4}{3}x - 5$

$P = \frac{|m \cdot n|}{2}$ ← SEGMENTNI OBLIK JEDNE PRAVCA

$4x - 3y = 15 \mid :15$

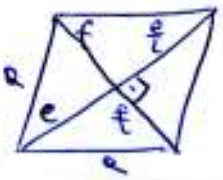
$$\frac{4x}{15} - \frac{3y}{15} = 1$$

$$\frac{x}{\frac{15}{4}} + \frac{y}{-5} = 1$$

$$P = \frac{\left|\frac{15}{4}(-5)\right|}{2} = \frac{75}{8}$$

(19.) $P = 336\ cm^2$

$\frac{e:f = 24:7}{a, f = ?}$



$P = \frac{e \cdot f}{2}$

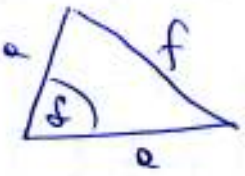
$\frac{e}{f} = \frac{24}{7} \Rightarrow e = \frac{24}{7} f$

$336 = \frac{\frac{24}{7} f \cdot f}{2}$

$\frac{24}{7} f^2 = 672$

$f = 14\ cm$

$e = \frac{24}{7} \cdot 14^2 = 48\ cm$



KOSINUSOVA POUČKA:

$f^2 = a^2 + a^2 - 2 \cdot a \cdot a \cos f$

$\cos f = \frac{f^2 - 2a^2}{-2a^2} = \frac{2a^2 - f^2}{2a^2} = 0.8432$

$a^2 = \left(\frac{e}{2}\right)^2 + \left(\frac{f}{2}\right)^2$

$f = \cos^{-1}(0.8432)$

$a^2 = 576 + 49 = 625 \Rightarrow a = 25\ cm$

$f = 32°\,31'\,13''$

(20.) $A(7, -2)$

$B(4, -4)$

$C(-1, 8)$

$A(x_1, y_1)$

$B(x_2, y_2)$

$\vec{AB} = (x_2 - x_1)\vec{i} + (y_2 - y_1)\vec{j}$

$f = \sphericalangle(\vec{AB}, \vec{AC}) = ?$

$\vec{AB} = (4-7)\vec{i} + (-4+2)\vec{j} = -3\vec{i} - 2\vec{j}$

$\vec{AC} = (-1-7)\vec{i} + (8+2)\vec{j} = -8\vec{i} + 10\vec{j}$

$\vec{AB} \cdot \vec{AC} = -3 \cdot (-8) - 2 \cdot 10 = 24 - 20 = 4$

SKALARNI UMNOŽAK

$\vec{AB} \cdot \vec{AC} = |\vec{AB}| \cdot |\vec{AC}| \cdot \cos f$

$|\vec{AB}| = \sqrt{(-3)^2 + (-2)^2} = \sqrt{13}$

$|\vec{AC}| = \sqrt{(-8)^2 + 10^2} = \sqrt{164}$

$f = \cos^{-1} \frac{\vec{AB} \cdot \vec{AC}}{|\vec{AB}| \cdot |\vec{AC}|}$

$f = \cos^{-1} \frac{4}{\sqrt{13} \cdot \sqrt{164}}$

$f = 85°\,1'\,49''$

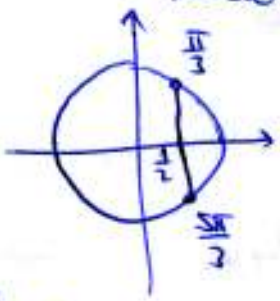
21. $\cos^2 x - \sin^2 x = \frac{1}{2}$ $\quad [0, 2\pi]$ PRVI KRUG!

$\cos 2x = \frac{1}{2}$

$2x = t$

$\cos t = \frac{1}{2}$

$t_1 = \frac{\pi}{3}$ $\quad t_2 = \frac{5\pi}{3}$



$2x = \frac{\pi}{3} \mid :2$ $\quad 2x = \frac{5\pi}{3} \mid :2$

$x_1 = \frac{\pi}{6}$ $\quad x_2 = \frac{5\pi}{6}$

NO, PAZITI! IZGUBILI SMO NEKA RJEŠENJA!

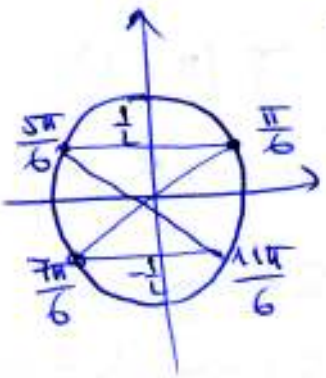
$\sin^2 x + \cos^2 x = 1 \Rightarrow \cos^2 x = 1 - \sin^2 x$

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

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

$\sin^2 x = \frac{1}{4} \mid \sqrt{\ }$

$\sin x = -\frac{1}{2}$ $\quad \sin x = \frac{1}{2}$



$x_1 = \frac{\pi}{6}$

$x_2 = \frac{5\pi}{6}$

$x_3 = \frac{7\pi}{6}$

$x_4 = \frac{11\pi}{6}$.

22.

1) $-2x^2 + x - 5 = 0$

VIETEOVE FORMULE!

$x_1 + x_2 = -\frac{b}{a}$

$x_1 \cdot x_2 = \frac{c}{a}$

$x_1 + x_2 = -\frac{b}{a} = -\frac{1}{-2} = \frac{1}{2}$

2) $3x^2 - 7x + 2 > 0$

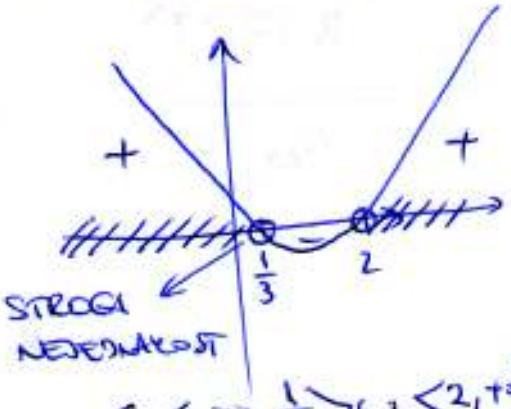
$3x^2 - 7x + 2 = 0$

$a = 3 > 0 \cup$

$x_{1/2} = \frac{7 \pm \sqrt{49 - 24}}{6} = \frac{7 \pm 5}{6}$

$x_1 = \frac{1}{3}$

$x_2 = 2$



$x \in \langle -\infty, \frac{1}{3} \rangle \cup \langle 2, +\infty \rangle$

(23)

1) $x^2 - 2x + m = 0$, $m \in \mathbb{R}$

$m = ?$ DVOSTRUKO REALNO RJEŠENJE

DISKRIMINANTA

$D = b^2 - 4ac$

$D < 0$ KOMPLEKSNA RJEŠENJA

$D = 0$ DVOSTRUKO REALNO

$D > 0$ 2 REALNA

$D = b^2 - 4ac = (-2)^2 - 4 \cdot 1 \cdot m$

$= 4 - 4m \Rightarrow D = 0$

$4 - 4m = 0$

$4m = 4 \mid :4 \Rightarrow \underline{m = 1}$

2) INTERVAL RASTA

$\langle -\frac{1}{2}, +\infty \rangle$

(24) 1) $T(2,3)$

$\frac{x}{2} - \frac{y}{4} = 1 \mid \cdot 4$

$2x - y = 4$

$P \dots \; 2x - y - 4 = 0$

$p \dots Ax + By + C = 0$

$T(x_1, y_1)$

$d(T,p) = \frac{|Ax_1 + By_1 + C|}{\sqrt{A^2 + B^2}}$

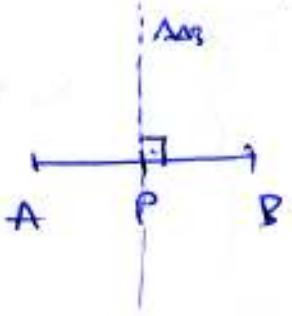
$d(T,p) = \frac{|2 \cdot 2 \;\; 3 - 4|}{\sqrt{2^2 + 1^2}} = \frac{3}{\sqrt{5}} \cdot \frac{\sqrt{5}}{\sqrt{5}}$

$d(T,p) = \underline{\frac{3\sqrt{5}}{5}}$

2) $A(6,5)$

$B(2,-3)$

$\cdot \; \Delta_{AB} \dots$



$P\left(\frac{6+2}{2}, \frac{5-3}{2}\right)$

$P(4,1)$

$k_{\Delta_{AB}} = -\frac{1}{k_{AB}}$

$k_{AB} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-3-5}{2-6} = \frac{-8}{-4} = 2 \Rightarrow k_{\Delta_{AB}} = -\frac{1}{2}$

$k_{\Delta_{AB}} = -\frac{1}{2}$

$P(4,1)$

$x_1 \; y_1$

$y - y_1 = k_{\Delta_{AB}}(x - x_1)$

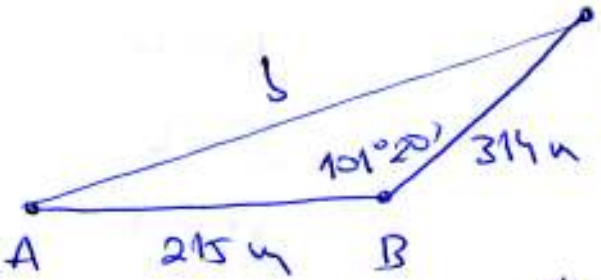
$y - 1 = -\frac{1}{2}(x - 4)$

$y = -\frac{1}{2}x + 3 \mid \cdot 2$

$x + 2y - 6 = 0 \dots \Delta_{AB}$

(25)

1)



$P = ?$

$P = \frac{1}{2} a b \sin\gamma = \frac{1}{2} a c \sin\beta = \frac{1}{2} b c \sin\alpha$

$P = \frac{1}{2} \cdot 215 \cdot 314 \cdot \sin 101°20'$

$P = 33\,096.79\ m^2$

2) $b = ?$ KOSINUSOV POUČAK!

$b^2 = 215^2 + 314^2 - 2 \cdot 215 \cdot 314 \cdot \cos 101°20' \quad /\sqrt{\ }$

$b = 343.93\ m$

(26)

1) $\log_5 (x-2) = -2$

$x - 2 = 5^{-2}$

$x = 2 + \frac{1}{5^2} = 2 + \frac{1}{25} = \frac{51}{25}$

2) $\log_3 x + \log_3 (x+6) \leq 3$

$\log(a \cdot b) = \log a + \log b$

$\log \frac{a}{b} = \log a - \log b$

$x > 0$

$x + 6 > 0$

$x > -6$

$\log_3 [x \cdot (x+6)] \leq \log_3 27$

$\log_3$ → BAZA > 1 ⇒ ZNAK NEJEDNAKOSTI OSTAJE KAKAV JESTE

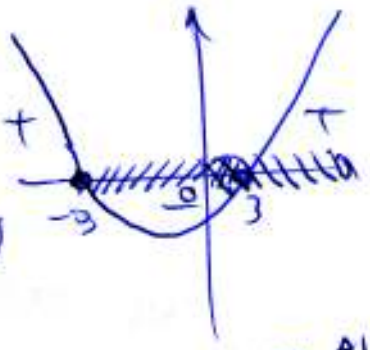
$x \cdot (x+6) \leq 27$

$x^2 + 6x - 27 \leq 0$ KV. NEJED.

$x^2 + 6x - 27 = 0$ $a = 1 > 0$ ∪

$x_{1/2} = \frac{-6 \pm \sqrt{36 + 108}}{2} = \frac{-6 \pm 12}{2}$

$x_1 = -9$ $x_2 = 3$



$x \in [-9, 3]$ ALI $x > 0$

$\Rightarrow \boxed{x \in \langle 0, 3]}$

(27) 1) $4^x - 12 \cdot 2^x + 32 = 0$

$2^{2x} - 12 \cdot 2^x + 32 = 0$

$2^x = t$

$t^2 - 12t + 32 = 0$

$t_{1/2} = \frac{12 \pm \sqrt{144 - 128}}{2} = \frac{12 \pm 4}{2}$

$t_1 = 4$ $\quad t_2 = 8$

$2^x = 4$ $\quad 2^x = 8$

$2^x = 2^2$ $\quad 2^x = 2^3$

$x_1 = 2$ $\quad x_2 = 3$

$x_1 + x_2 = 2 + 3 = 5$ //

2) $3^{-2+3\log_3 4} = 3^{-2} \cdot 3^{\log_3 4^3} = \frac{1}{3^2} \cdot 4^3 = \frac{64}{9}$

$a^{\log_a x} = x$

(28) 1) $f(x) = 2\cos\left(\frac{1}{2}x\right)$, $[0, 4\pi]$ ($\omega = \frac{1}{2}$)

AMPLITUDA = 2

PERIOD: $P = \frac{2\pi}{\omega} \Rightarrow P = \frac{2\pi}{\frac{1}{2}} = 4\pi$

NULOCKE: $f(x) = 0$

$2\cos\frac{1}{2}x = 0 \quad | \cdot 2$

$\cos\frac{1}{2}x = 0$

$\frac{1}{2}x = \frac{\pi}{2} + k\pi \quad | \cdot 2$

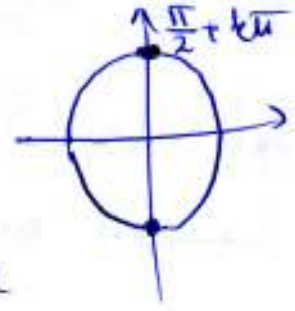
$x = \pi + 2k\pi$

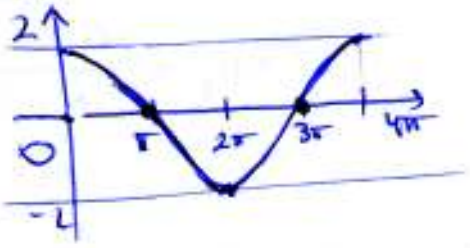
$k = 0 \Rightarrow x_1 = \pi$

$k = 1 \Rightarrow x_2 = \pi + 2\pi = 3\pi$

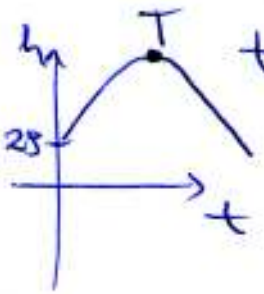
$k = 1 \Rightarrow x_3 = \pi + 4\pi = 5\pi \notin [0, 4\pi]$

NE TREBA ~~$k \neq 2$~~





(29) $h(t) = -5t^2 + 24t + 29$



t - VRIJEME, KADA JE TEK BAČENA LOPTA $t=0$

$\Rightarrow h(0) = -5\cdot 0^2 + 24\cdot 0 + 29$

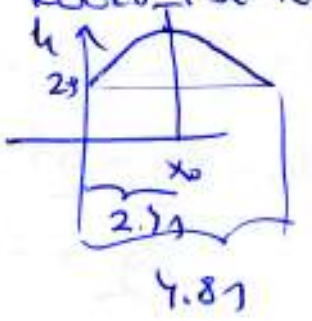
$h(0) = 29$

1) VISINA KUĆE JE **29 m.**

2) MAKSIMALNA VISINA JE y KOORDINATA TJEMENA

$$y_0 = \frac{4ac - b^2}{4a} = \frac{4\cdot(-5)\cdot 29 - 24^2}{4\cdot(-5)} = 57.8\,m$$

3.) LOPTA POSTIŽE MAKSIMUM U x KOORD. TJEMENA



$$x_0 = -\frac{b}{2a} = -\frac{24}{2\cdot(-5)} = 2.4\,s$$

PADO U VISINI KUĆE U

$$2\cdot x_0 = 4.8\,s$$

4.) LOPTA ĆE PASTI NA TLO $\Rightarrow$ VISINA = 0 $\Rightarrow$ NULTOČKA

$h(t) = 0$

$-5t^2 + 24t + 29 = 0$

$$t_{1/2} = \frac{-24 \pm \sqrt{24^2 + 20\cdot 29}}{-10}$$

$t_1 = 5.8\,s$

$t_2 = -1\,s$ ~~$= -1\,s$~~

5.) $v = 10\,m/s$, $s = 57.5\,m$ $\Rightarrow v = \frac{s}{t} \Rightarrow t = \frac{s}{v} = \frac{57.5}{10} = 5.75\,s$

$h(t) = ?$

$h(5.75) = -5\cdot 5.75^2 + 24\cdot 5.75 + 29$

$h(5.75) = 1.6875 = 1.69\,m$

(30.) $A(-2,0)$
$B(0,0)$
$C(0,-4)$

$k \dots (x-p)^2 + (y-q)^2 = r^2$

1) $A \in k \Rightarrow (-2-p)^2 + (0-q)^2 = r^2$
$B \in k \Rightarrow (0-p)^2 + (0-q)^2 = r^2$
$C \in k \Rightarrow (0-p)^2 + (-4-q)^2 = r^2$

$(2+p)^2 + q^2 = r^2$
$p^2 + q^2 = r^2$
$p^2 + (4+q)^2 = r^2$

$(2+p)^2 + q^2 = p^2 + q^2 \Rightarrow 4 + 4p + p^2 = p^2$
$p^2 + (4+q)^2 = p^2 + q^2$
$4p = -4 \mid :4$
$16 + 8q + q^2 = q^2$
$p = -1$
$8q = -16 \mid :8$
$S(-1,-2)$
$q = -2$
$r^2 = p^2 + q^2 = 1 + 4 = 5 \Rightarrow r = \sqrt{5}$

$k \dots (x+1)^2 + (y+2)^2 = 5$

2.) $A(\overset{x_1}{-2}, \overset{y_1}{0})$ $p = -1, q = -2$
$k \dots (x+1)^2 + (y+2)^2 = 5$

$t \dots (x_1-p)(x-p) + (y_1-q)(y-q) = r^2$
$(\overbrace{-2+1}^{-1})(x+1) + (0+2)(y+2) = 5$
$-x - 1 + 2y + 4 = 5$
$-x + 2y - 2 = 0 \mid \cdot(-1)$
$t \dots x - 2y + 2 = 0$

3.) $T(-3, y)$

$T \in k \Rightarrow (x+1)^2 + (y+2)^2 = 5$

$(-3+1)^2 + (y+2)^2 = 5$

$(y+2)^2 = 1 \quad /\sqrt{\ }$

$y+2 = -1 \qquad y+2 = 1$

$y = -3 \qquad y = -1$

4) NORMALA OKOMITA NA TANGENTU:

$k_n = -\frac{1}{k_t}$, $t \dots x - 2y + 2 = 0$

$y = \frac{1}{2}x + 1$

$\Rightarrow k_t = \frac{1}{2}$

$k_n = -2$

$A(-2, 0)$

$k_n = -2$

$y - y_1 = k \cdot (x - x_1)$

$y - 0 = -2 \cdot (x + 2)$

$n \dots \quad y = -2x - 4$

5.) $t \dots \quad y = \frac{1}{2}x + 1$

$n \dots \quad y = -2x - 4$

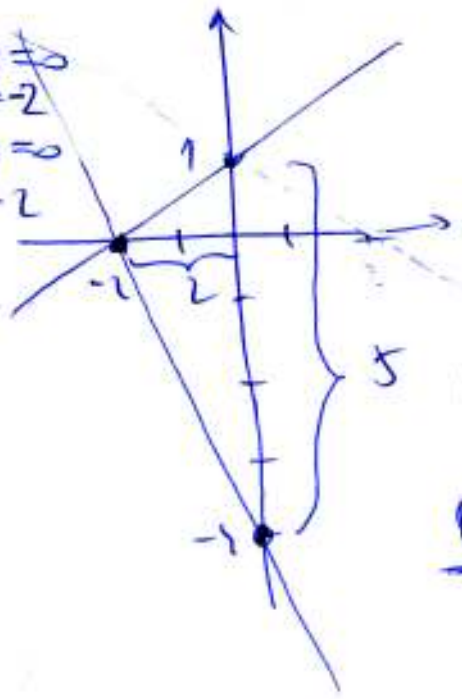
$P_\Delta = ?$

$\frac{1}{2}x + 1 = 0$

$x = -2$

$-2x - 4 = 0$

$x = -2$



$P = \frac{5 \cdot 2}{2}$

$P = 5$