Popuniti odmah!

**IME I PREZIME:** KRISTINA POŽARINA **BROJ INDEKSA:** 17-2-0021-2010 (80)

DATUM: VRIJEME: OD 8:20 DO 9:25

MATEMATIKA 1: Trajanje 100 minuta. Ispit se održava sukladno objavljenim pravilima. Na snazi je Pravilnik o stegovnoj odgovornosti studenata. xooxx

Broj ↓ bodova

1. Odrediti determinantu matrice $A = \begin{bmatrix} 1 & 2 & 0 & 0 \\ 2 & 1 & 2 & 0 \\ 0 & 2 & 1 & 2 \\ 0 & 0 & 2 & 1 \end{bmatrix}$ — 20

2. Odrediti domenu i sve asimptote funkcije $f(x) = x - \sqrt{x^2 - x}$ — 10

3. Ispitati konvergenciju reda $\sum \left( \frac{3n+3}{\frac{1}{n} + 2n} \right)^n$ — 20

4. Ispitati domenu, (ne)parnost i drugu derivaciju funkcije $g(x) = \ln(x^2 + 1)$. — 20

5. Na temelju ispitivanja toka funkcije napraviti skicu grafa funkcije $h(x) = \frac{x^2 - 1}{x^2 + 1}$. — 10

(1.) $A = \begin{vmatrix} 1 & 2 & 0 & 0 \\ 2 & 1 & 2 & 0 \\ 0 & 2 & 1 & 2 \\ 0 & 0 & 2 & 1 \end{vmatrix}$

$1 \begin{vmatrix} 1 & 2 & 0 \\ 2 & 1 & 2 \\ 0 & 2 & 1 \end{vmatrix} - 2 \begin{vmatrix} 2 & 2 & 0 \\ 0 & 1 & 2 \\ 0 & 2 & 1 \end{vmatrix} =$

$= 1 \left| 1 \begin{vmatrix} 1 & 2 \\ 2 & 1 \end{vmatrix} - 2 \begin{vmatrix} 2 & 2 \\ 0 & 1 \end{vmatrix} \right| - 2 \left| 2 \begin{vmatrix} 1 & 2 \\ 2 & 1 \end{vmatrix} - 2 \begin{vmatrix} 0 & 2 \\ 0 & 1 \end{vmatrix} \right| =$

$= 1 \left[ 1 \cdot (-3) - 2 \cdot 2 \right] - 2 \left[ 2 \cdot (-3) - 2 \cdot 0 \right] =$

$= 1 \left[ -3 - 4 \right] - 2 \left[ -6 - 0 \right] =$

$= -7 + 12 = 5$ ✓

20

IME I PREZIME: KRISTINA POŽARINA BROJ INDEKSA: 17-2-0021-2010

(2.) $f(x) = x - \sqrt{x^2 - x}$

$x^2 - x \geq 0$

$x(x-1) \geq 0$

$x = 0$

$x = 1$

| | $-\infty$ | | $0$ | | $1$ | | $+\infty$ |
|---|---|---|---|---|---|---|---|
| $x$ | | $-$ | $0$ | $+$ | $1$ | $+$ | |
| $x-1$ | | $-$ | | $-$ | $0$ | $+$ | |
| $x^2-x$ | | $+$ | $0$ | $-$ | $0$ | $+$ | |

$D_f: \langle -\infty, 0] \cup [1, +\infty \rangle$ ✓

V.A.

$x = 1$ ✗

H.A. $\lim_{x\to\infty} \left(x - \sqrt{x^2-x}\right) \cdot \frac{x + \sqrt{x^2-x}}{x + \sqrt{x^2-x}} = \lim_{x\to\infty} \frac{x^2 - \left(\sqrt{x^2-x}\right)^2}{x + \sqrt{x^2-x}} =$

$= \lim_{x\to\infty} \frac{x^2 - x^2 + x \quad /:x}{x + \sqrt{x^2-x} \quad :x} = \lim_{x\to\infty} \frac{\frac{x}{x}}{\frac{x}{x} + \sqrt{\frac{x^2}{x^2} - \frac{x}{x^2}}} =$

$= \lim_{x\to\infty} \frac{1}{1+1} = \frac{1}{2}$ $\quad y = \frac{1}{2}$ D.H.A. ✓ 10

K.A. $y = kx + l$

$k = \lim_{x\to\infty} \frac{x - \sqrt{x^2-x} \quad /:x}{x \quad :x} = \lim_{x\to\infty} \frac{1 - 1 + 0}{1} = \frac{0}{1} = 0$

nema kose asimptote

---

ŠTO SE SA LIJEVIM HORIZONTALNIM I KOSIM ASIMPTOTAMA?

$\lim_{x\to-\infty} f(x) = ?$

$k = \lim_{x\to-\infty} \frac{f(x)}{x} = ?$

$l = \lim_{x\to-\infty} f(x) - kx = ?$

IME I PREZIME: KRISTINA POŽARINA BROJ INDEKSA: 17-2-0021-2010

3. $\sum \left( \frac{3n+3}{\frac{1}{n}+2n} \right)^n$

CAUCHY

$$\lim_{n\to\infty} \sqrt[n]{\left( \frac{3n+3}{\frac{1}{n}+2n} \right)^n} = \lim_{n\to\infty} \left( \frac{3n+3}{\frac{1}{n}+2n} \right)^{\frac{n}{n}} =$$

$$= \lim_{n\to\infty} \frac{3n+3 \;/:n}{\frac{1}{n}+2n \;/:n} = \lim_{n\to\infty} \frac{\frac{3n}{n}+\frac{3}{n}}{\frac{1}{n\cdot n}+\frac{2n}{n}} =$$

$$= \frac{3}{2} > 1 \text{ DIV.} \quad \checkmark$$

20

4. $g(x) = \ln(x^2+1)$

$g(-x) = \ln((-x)^2+1)$

$g(-x) = \ln(x^2+1)$ - funkcija je parna ✓

$x^2+1 > 0$

$x^2 > -1$

$x = \pm\sqrt{-1}$

DF: $\mathbb{R}$ ✓

$g(x) = \ln(x^2+1)$

$g'(x) = \frac{1}{x^2+1}(x^2+1)'$

$g'(x) = \frac{2x}{x^2+1}$

$g''(x) = \frac{2(x^2+1)-2x(x^2+1)'}{(x^2+1)^2}$

$g''(x) = \frac{(2x)'(x^2+1)-2x(x^2+1)'}{(x^2+1)^2}$

$g''(x) = \frac{2x^2+2-2x\cdot 2x}{(x^2+1)^2}$

$g''(x) = \frac{2x^2+2-4x^2}{(x^2+1)^2}$

$g''(x) = \frac{-2x^2+2}{(x^2+1)^2}$ ✓

20

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(5.) $h(x) = \frac{x^2-1}{x^2+1}$

1) $x^2+1=0$ $\quad D_f: x \in \mathbb{R}$

$x^2=-1$

$x=\pm\sqrt{-1}$

$x=\pm i$

2) NUL TOČKE

$\frac{x^2-1}{x^2+1}=0 \;/\cdot(x^2+1)$

$x^2-1=0$

$x^2=1$

$x=\pm 1$

3) ASIMPTOTE

V.A. - nema

H.A. $\lim\limits_{x\to\infty} \frac{x^2-1 \;/:x^2}{x^2+1 \;/:x^2} = \frac{1}{1} = 1$

$y=1$

K.A. $y=kx+l$

$k = \lim\limits_{x\to\infty} \frac{f(x)}{x} = \lim\limits_{x\to\infty} \frac{\frac{x^2-1}{x^2+1}}{\frac{x}{1}} = \lim\limits_{x\to\infty} \frac{x^2-1 \;/:x^3}{x^3+x \;/:x^3} = \frac{0}{1} = 0$

nema K.A.

IME I PREZIME: KRISTINA POŽARINA BROJ INDEKSA: 17-2-0021-2010

4) EKSTREMI

$h(x) = \frac{x^2-1}{x^2+1}$ $\quad 2x^3 - 2x$ $\quad 2x(x^2-1)$

$h'(x) = \frac{2x(x^2+1) - (x^2-1)2x}{(x^2+1)^2}$

$h'(x) = \frac{2x^3 + 2x - 2x^3 + 2x}{(x^2+1)^2}$

$h'(x) = \frac{4x}{(x^2+1)^2}$

$h'(x) = 0$

$\frac{4x}{(x^2+1)^2} = 0 \;/\cdot (x^2+1)^2$

$4x = 0$

$x = 0$

| | $-\infty$ | | $0$ | | $+\infty$ |
|---|---|---|---|---|---|
| | | $-1$ | | $1$ | |
| $h'(x)$ | | $-$ | | $+$ | |
| $h(x)$ | | $\searrow$ | | $\nearrow$ | |

$h'(-1) = \frac{-}{+}$

$h'(1) = \frac{+}{+}$

LOK. MIN. ZA $x=0$

$h'(x) = \frac{4x}{(x^2+1)^2}$

$h''(x) = \frac{4(x^2+1)^2 - 4x \cdot 2(x^2+1) \cdot 2x}{[(x^2+1)^2]^2}$

$h''(x) = \frac{4(x^2+1)^2 - 16x^2(x^2+1)}{(x^2+1)^4}$ ✓

$h''(x) = \frac{4(x^2+1)(x^2+1) - 4x^2}{(x^2+1)^{4-3}}$ ✗

$h''(x) = \frac{4(x^2+1) - 4x^2}{(x^2+1)^3}$

$h''(x) = \frac{4x^2 + 4 - 4x^2}{(x^2+1)^3}$

$h''(x) = \frac{4}{(x^2+1)^3}$

$h''(0) = \frac{4}{0+1} = 4 > 0$ u $(0, -1)$

5) KONKAVNOST I KONVEKSNOST

$h''(x) = 0$

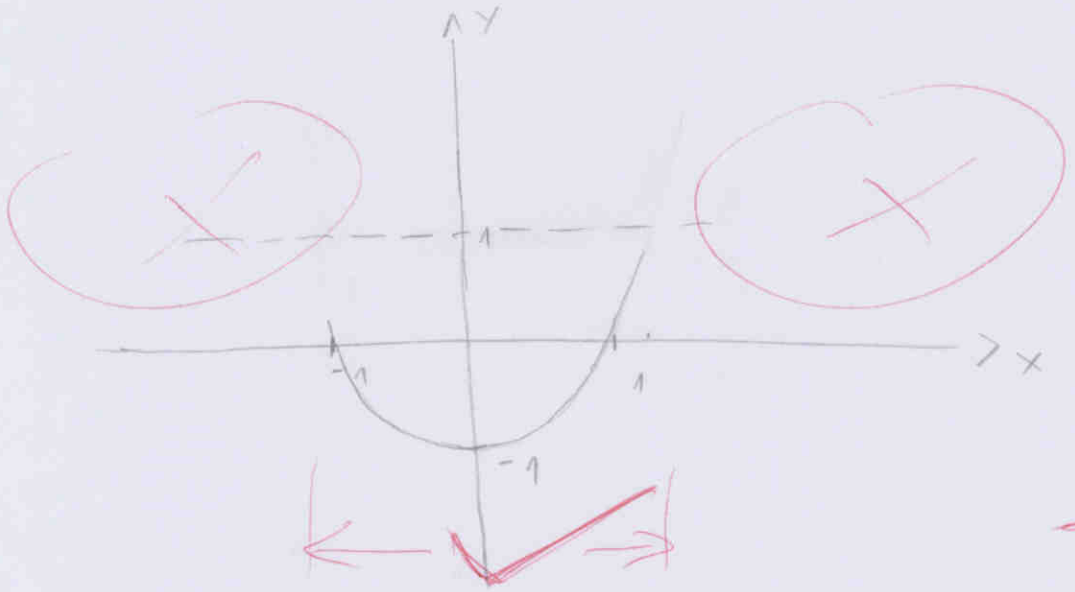
$\frac{4}{(x^2+1)^3} = 0 \;/\cdot (x^2+1)^3$

$4 = 0$ NEMA TOČAKA PREGIBA ✗

POGREŠNO SKRAĆIVANJE

$\frac{4 \cdot \text{nešto}^2 - 4x^2}{\text{nešto}^4} \neq \frac{4\,\text{nešto} - 4x^2}{\text{nešto}^3}$

IME I PREZIME: KRISTINA POŽARINA BROJ INDEKSA: 17-2-0021-2010

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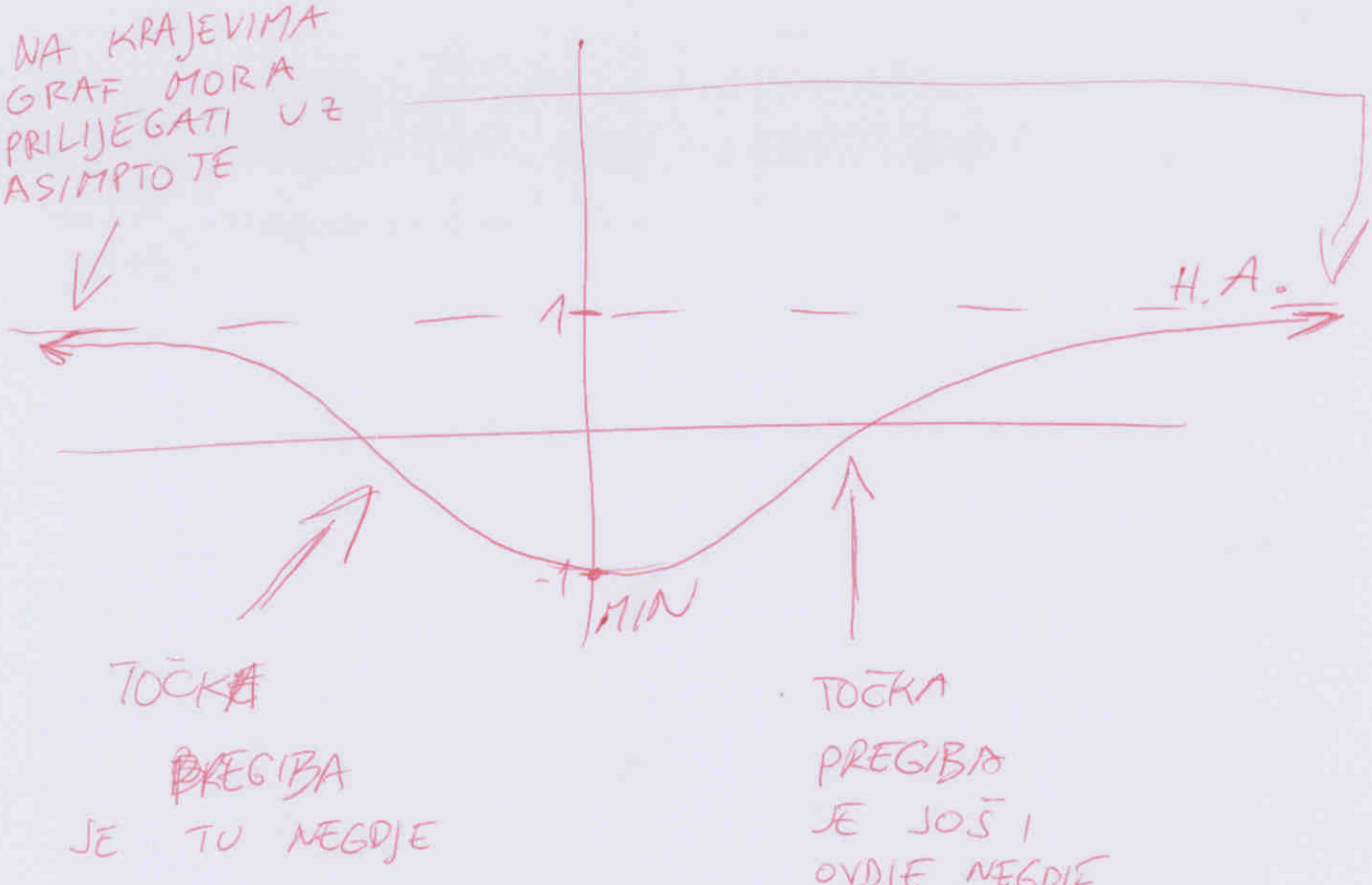


Popuniti odmah!

IME I PREZIME: MLADEN BULIĆ BROJ INDEKSA: 17-1-0018-2010 (60)

DATUM: 24.6.2011. VRIJEME: OD 8:10 DO 9:20

MATEMATIKA 1: Trajanje 100 minuta. Ispit se održava sukladno objavljenim pravilima. Na snazi je Pravilnik o stegovnoj odgovornosti studenata.

xooxx

Broj ↓ bodova

1. Odrediti determinantu matrice $A = \begin{bmatrix} 1 & 2 & 0 & 0 \\ 2 & 1 & 2 & 0 \\ 0 & 2 & 1 & 2 \\ 0 & 0 & 2 & 1 \end{bmatrix}$ 20

2. Odrediti domenu i sve asimptote funkcije $f(x) = x - \sqrt{x^2 - x}$ 10

3. Ispitati konvergenciju reda $\sum \left( \frac{3n+3}{\frac{1}{n} + 2n} \right)^n$ 20

4. Ispitati domenu, (ne)parnost i drugu derivaciju funkcije $g(x) = \ln(x^2 + 1)$. 10

5. Na temelju ispitivanja toka funkcije napraviti skicu grafa funkcije $h(x) = \frac{x^2 - 1}{x^2 + 1}$. Ø

1. $\begin{bmatrix} 1 & 2 & 0 & 0 \\ 2 & 1 & 2 & 0 \\ 0 & 2 & 1 & 2 \\ 0 & 0 & 2 & 1 \end{bmatrix} = 1 \begin{vmatrix} 1 & 2 & 0 \\ 2 & 1 & 2 \\ 0 & 2 & 1 \end{vmatrix} - 2 \begin{vmatrix} 2 & 2 & 0 \\ 0 & 1 & 2 \\ 0 & 2 & 1 \end{vmatrix} = 1 \left| 1 \begin{vmatrix} -3 & 2 \\ 1 & 2 \\ 2 & 1 \end{vmatrix} - 2 \begin{vmatrix} 2 & 2 \\ 0 & 1 \end{vmatrix} \right|$

$- 2 \left| 2 \begin{vmatrix} -3 & 2 \\ 1 & 2 \\ 2 & 1 \end{vmatrix} - 2 \begin{vmatrix} 0 & 2 \\ 0 & 1 \end{vmatrix} \right| = 1 \cdot (-3) - 2 \cdot 2 - 4 \cdot (-3) =$

$-3 - 4 + 12 = 5$ ✓

20

IME I PREZIME: MLADEN BULIĆ BROJ INDEKSA: 17-1-0018-2010

2. $f(x) = x - \sqrt{x^2 - x}$ $D_f(\mathbb{R})$ ✗

N.V.A.

$$\lim_{x \to +\infty} = x - \sqrt{x^2 - x} \cdot \frac{x + \sqrt{x^2 - x}}{x + \sqrt{x^2 - x}} = \frac{x^2 - x^2 - x}{x + \sqrt{x^2 - x}} = \frac{-x \;/:x}{x + \sqrt{x^2 - x}\;/:x}$$

$$= \frac{-1}{1 + \sqrt{1 - \frac{1}{x}}} = \frac{-1}{2} = -\frac{1}{2} \quad \text{D. H. A.}$$

$$\lim_{x \to -\infty} = \frac{-x - \sqrt{x^2 + x}}{} \cdot \frac{-x + \sqrt{x^2 + x}}{-x + \sqrt{x^2 + x}} = \frac{+x^2 - x^2 + x\;/:x}{-x + \sqrt{x^2 + x}\;/:x} = \frac{1}{-1 + 1} = \frac{1}{0} \Rightarrow$$ N.L.H.A. ✓

$\frac{0}{1} = 0$

$$\lim_{x \to \infty} = \frac{x - \sqrt{x^2 - x}\;/:x}{x\;/:x} = \frac{1 - \sqrt{1 - \frac{1}{x}}}{1} = \frac{0}{1} \Rightarrow$$ N. D. K. A. ✗

$$\lim_{x \to -\infty} = \frac{-x - \sqrt{x^2 + x}\;/:x}{-x\;/:x} = \frac{-1 - \sqrt{1 + \frac{1}{x}}}{-1} = \frac{-1 - 1}{-1} = 2$$

$$\lim_{x \to -\infty} = -x - \sqrt{x^2 + x} + 2x = -x - \sqrt{x^2 + x} \cdot \frac{x + \sqrt{x^2 + x}}{x + \sqrt{x^2 + x}}$$

$$= \frac{x^2 - x^2 + x\;/:x}{x + \sqrt{x^2 + x}\;/:x} = \frac{x\;/:x}{x + \sqrt{x^2 + x}\;/:x} = \frac{1}{1 + 1}$$

$$= \frac{1}{2} //$$

$L_1 K_1 A_1 = \frac{1}{2}x + 2$ ✓

10

IME I PREZIME: MLADEN BULIĆ BROJ INDEKSA: 17-1-0018-2010

CAUCHY $\sqrt[n]{a_n}$

③ $\sum \left(\frac{3n+3}{\frac{1}{n}+2n}\right)^n = \sqrt[n]{\left(\frac{3n+3}{\frac{1}{n}+2n}\right)^n} = \frac{3n+3\ /:n}{\frac{1}{n}+2n\ /:n} = \frac{3+\frac{3}{n}}{\frac{1}{n^2}+2} =$

$\sum \left(\frac{3n+3}{\frac{1}{n}+2n}\right)^n$

$= \frac{3}{2} \Rightarrow$ DIVERGIRA ✓

20

④ $g(x) = \ln(x^2+1)$ $\quad D(f) = \langle -1, +\infty \rangle$ ×

$g'(x) = \frac{1}{(x^2+1)} \cdot 2x = \frac{2x}{(x^2+1)}$ ✓

$x^2+1 > 0$

$x^2 > -1$ SVUDJEK ✓

$D(f) = \mathbb{R}$

$g''(x) = \frac{2x}{x^2+1} = \frac{(2x)' \cdot (x^2+1) - (2x) \cdot (x^2+1)'}{(x^2+1)^2} = \frac{2 \cdot (x^2+1) - 2x \cdot 2x}{(x^2+1)^2}$

$= \frac{2x^2+1-4x^2}{(x^2+1)^2} = \frac{-2x^2+1}{(x^2+1)^2}$ ✓ (NE)PARNOST

10

⑤ $h(x) = \frac{x^2-1}{x^2+1}$

$D(f) = \mathbb{R} \setminus \{-1\}$ ×

$x^2+1 \neq 0$

$x^2 \neq -1$

SLIKA GRAFA?

∅

Popuniti odmah!

IME I PREZIME: KRISTIJAN KOKIĆ BROJ INDEKSA: 57652-2009

DATUM: 24.06.2011 VRIJEME: OD 0930 DO 10:00

MATEMATIKA 1: Trajanje 100 minuta. Ispit se održava sukladno objavljenim pravilima. Na snazi je Pravilnik o stegovnoj odgovornosti studenata.

xooxx
Broj ↓ bodova

1. Odrediti determinantu matrice $A = \begin{bmatrix} 1 & 2 & 0 & 0 \\ 2 & 1 & 2 & 0 \\ 0 & 2 & 1 & 2 \\ 0 & 0 & 2 & 1 \end{bmatrix}$

2. Odrediti domenu i sve asimptote funkcije $f(x) = x - \sqrt{x^2 - x}$

3. Ispitati konvergenciju reda $\sum \left( \frac{3n+3}{\frac{1}{n}+2n} \right)^n$

4. Ispitati domenu, (ne)parnost i drugu derivaciju funkcije $g(x) = \ln(x^2+1)$.

5. Na temelju ispitivanja toka funkcije napraviti skicu grafa funkcije $h(x) = \frac{x^2-1}{x^2+1}$.

(1.) $A = \begin{bmatrix} 1 & 2 & 0 & 0 \\ 2 & 1 & 2 & 0 \\ 0 & 2 & 1 & 2 \\ 0 & 0 & 2 & 1 \end{bmatrix} = 1 \begin{bmatrix} 1 & 2 & 0 \\ 2 & 1 & 2 \\ 0 & 2 & 1 \end{bmatrix} + (-2) \cdot \begin{bmatrix} 2 & 0 & 0 \\ 2 & 1 & 2 \\ 0 & 2 & 1 \end{bmatrix} + 0 \cdot \begin{bmatrix} 2 & 0 & 0 \\ 1 & 2 & 0 \\ 0 & 2 & 1 \end{bmatrix} - 0 \begin{bmatrix} 2 & 0 & 0 \\ 1 & 2 & 0 \\ 2 & 1 & 2 \end{bmatrix}$

$= 1 \cdot \left( 1 \begin{bmatrix} 1 & 2 \\ 2 & 1 \end{bmatrix} \right) + (-2) \cdot \left( 2 \begin{bmatrix} 2 & 2 \\ 2 & 1 \end{bmatrix} \right) = 1 \cdot (-3) + (-2) \cdot 2 \cdot (-3)$

$= -3 + 12$

$= 9$ ×

FIDI BULIĆ BOŽARINA

(2) $g(x) = \ln(x^2+1)' = \frac{1}{x^2+1} = \frac{(x^2+1)+1'}{(x^2+1)^2} = \frac{1+(x^2+1)'}{(x^2+1)^2}$

$g(x) = \frac{(x^2+1)-1+2x}{(x^2+1)^2} =$

$g(x) = \frac{((x^2+1)^2)' - (x^2+1) - 1 + 2x - ((x^2+1) - 1 + 2x)' + (x^2+1)}{((x^2+1)^2)^2}$

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

Popuniti odmah!

**IME I PREZIME:** MARKO TKALČEC **BROJ INDEKSA:** 0269024536

DATUM: VRIJEME: OD 8:50 DO 8:53

MATEMATIKA 1: Trajanje 100 minuta. Ispit se održava sukladno objavljenim pravilima. Na snazi je Pravilnik o stegovnoj odgovornosti studenata.

xooxx
Broj ↓ bodova

1. Odrediti determinantu matrice $A = \begin{bmatrix} 1 & 2 & 0 & 0 \\ 2 & 1 & 2 & 0 \\ 0 & 2 & 1 & 2 \\ 0 & 0 & 2 & 1 \end{bmatrix}$

2. Odrediti domenu i sve asimptote funkcije $f(x) = x - \sqrt{x^2 - x}$

3. Ispitati konvergenciju reda $\sum \left( \frac{3n+3}{\frac{1}{n} + 2n} \right)^n$

4. Ispitati domenu, (ne)parnost i drugu derivaciju funkcije $g(x) = \ln(x^2 + 1)$.

5. Na temelju ispitivanja toka funkcije napraviti skicu grafa funkcije $h(x) = \frac{x^2 - 1}{x^2 + 1}$.

(4.) (g)

$g(x) = \ln(x^2+1)$

$\ln(x)' = \frac{1}{x}$

$g(x) = \frac{1}{x^2+1}$

$g(x) = \frac{1}{(x+1)(x-1)}$

Popuniti odmah!

**Ime i prezime:** IVAN MAMIĆ **Broj indeksa:** 56437

Datum: 24.6. Vrijeme: od 10:00 do 10:45.

MATEMATIKA 1: Trajanje 100 minuta. Ispit se održava sukladno objavljenim pravilima. Na snazi je Pravilnik o stegovnoj odgovornosti studenata.

xooxx

Broj ↓ bodova

0

1. Odrediti determinantu matrice $A = \begin{bmatrix} 1 & 2 & 0 & 0 \\ 2 & 1 & 2 & 0 \\ 0 & 2 & 1 & 2 \\ 0 & 0 & 2 & 1 \end{bmatrix}$

0

2. Odrediti domenu i sve asimptote funkcije $f(x) = x - \sqrt{x^2 - x}$

0

3. Ispitati konvergenciju reda $\sum \left( \frac{3n+3}{\frac{1}{n} + 2n} \right)^n$

4. Ispitati domenu, (ne)parnost i drugu derivaciju funkcije $g(x) = \ln(x^2 + 1)$.

0

5. Na temelju ispitivanja toka funkcije napraviti skicu grafa funkcije $h(x) = \frac{x^2 - 1}{x^2 + 1}$.

0

(5.)

$h(x) = \frac{x^2 - 1}{x^2 + 1}$

1) $x^2 - 1 \geq 0$

$x^2 \geq 1$

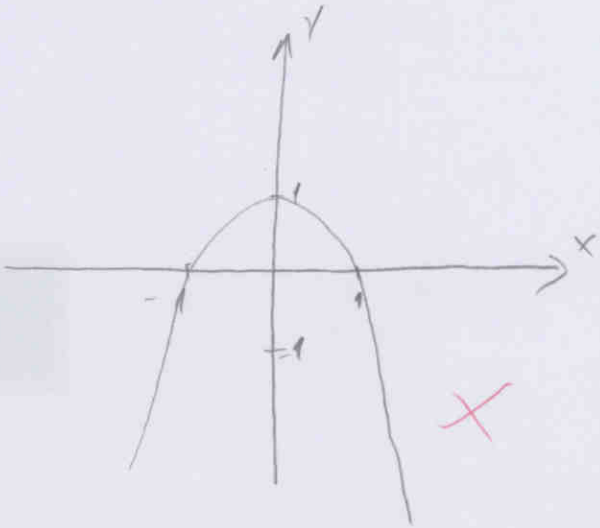
$x \geq 1$

2) $x^2 + 1 \geq 0$

$x^2 \geq -1$

$x \geq -1$

$D \langle -\infty, -1 ] \cup [1, +\infty \rangle$ X




X

IME I PREZIME: IVAN MAMIĆ BROJ INDEKSA: 56437

2.

$f(x) = x - \sqrt{x^2 - x}$

$x - \sqrt{x^2 - x} \leq 0$

$x - \sqrt{x^2} - \sqrt{x} \leq 0$

$x - x - x^{\frac{1}{2}} \leq 0$

$-x^{\frac{1}{2}} \leq 0$

$-\sqrt{x} \leq 0$

L.K.A.

$k_2 = \lim_{x \to -\infty} \frac{x - \sqrt{x^2 - x}}{-\sqrt{x}}$

$k_2 = \lim_{x \to -\infty}$

D.K.A

$y = k_1 x + l_1$

$k_1 = \lim_{x \to \infty} \frac{f(x)}{x}$

$l_1 = \lim_{x \to \infty} (f(x) - k_1 x)$

L.K.A

$y = k_2 x + l_2$

$k_2 = -\infty$

$l_2 = -\infty$ $\quad +x - k_2 x$

D.K.A

$k_1 = \lim_{x \to \infty} \frac{x - \sqrt{x^2 - x}}{-\sqrt{x}}$

$k_1 = \lim_{x \to +\infty} \frac{\frac{x}{x^2} - \sqrt{\frac{x^2}{x^4} - \frac{x}{x^2}}}{\frac{-\sqrt{x}}{x}}$

$k_1 = \frac{\sqrt{1}}{-1} = -\sqrt{1}$

$l_1 = \lim_{x \to +\infty} \left( \left( x - \sqrt{x^2 - x} \right) - \left( \sqrt{1} \cdot + \sqrt{x} \right) \right)$

$l_1 = \lim_{x \to +\infty}$

0

IME I PREZIME: IVAN MAMIĆ BROJ INDEKSA: 56437

(4.) $g(x) = \ln(x^2+1)$

$\ln(x^2+1) \geq 0$

$\ln x^2 \geq -1$

$g'(x) = (\ln)'(x^2+1)'$

$g'(x) = 1\,(2x^{2-1} + 0)$

$g'(x) = 1 \cdot 2x$

$g'(x) = 2x$

$g''(x) = (2)'' \cdot (x)''$

$g''(x) = 0 \cdot 1x^{1-1}$

$g''(x) = 0$

IME I PREZIME: IVAN MAMIĆ BROJ INDEKSA: 56437

1.

$$A = \begin{bmatrix} 1 & 2 & 0 & 0 \\ 2 & 1 & 2 & 0 \\ 0 & 2 & 1 & 2 \\ 0 & 0 & 2 & 1 \end{bmatrix} = ?$$

0