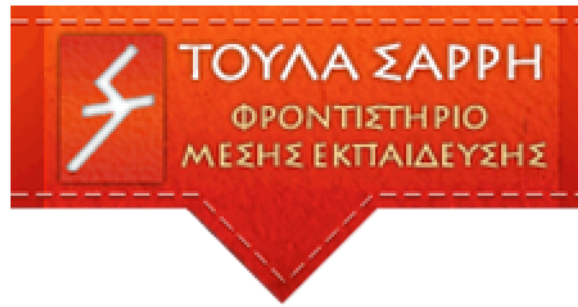


μ 1

1. $f'(x_0) = 0$ $f(x_0)$ f .
2. $f'(x_0) > 0$ $x \in (,) \cup (\gamma,)$ f .
3. $f'(x_0) < 0$ μ μ , f .
4. $f'(x_0) > 0$ μ μ , C_f μ $x'x$.
5. $f : [,] \rightarrow \mathbb{R}$, μ $[,]$ $x_0 \in [,]$,
 $f'(x_0) = 0$.
- (10)**

1. $f(x) = \frac{1}{\sqrt{4-x^2}}$ μ :
 $(-\infty, 4]$ $(-4, 4)$ $(-\infty, -2) \cup (2, +\infty)$ $(-2, 2)$
2. $f(2x+1) = 5x^2 + 1$. $f(1)$ μ :
 $.1$ $.0$ $.6$ $.46$
3. f , $\in D_f$ $f() = f()$, :
 $. =$ $. \neq$ $. = -\beta$. μ
4. f C_f μ $y y$:
 μ μ μ μ



5. $f: (,] \rightarrow \mathbb{R}$
 $\cdot f() \mu$ μ f $\cdot f() \mu$ μ f
 $\cdot f()$ μ f $\cdot f()$ μ f

(15)

μ 2

\cdot μ (I) $\mu\mu$ (II),

$() - f(x)$ $() - f'(x)$

1. x^2 $\cdot 2x \quad x^2$
2. μx^2 $\cdot \mu 2x$
3. $^2 x$ $\cdot -2x \quad \mu x^2$
4. $\mu^2 x$ $\cdot - \mu 2x$
 $\cdot \mu x \cdot x$

(10)

$\cdot f(x) = 2xe^{-\frac{x}{2}}$ $\cdot f'(x)$ $\cdot f''(x)$

\cdot $: 2f''(x) + 3f'(x) + f(x) = 2e^{-\frac{x}{2}} \quad x \in \mathbb{R}$

(15)

μ 3

$f, g \mu f(x) = \ln(x^2 - x + 1) \quad g(x) = x^2 - \cdot x + \mu, \in \mathbb{R}.$:

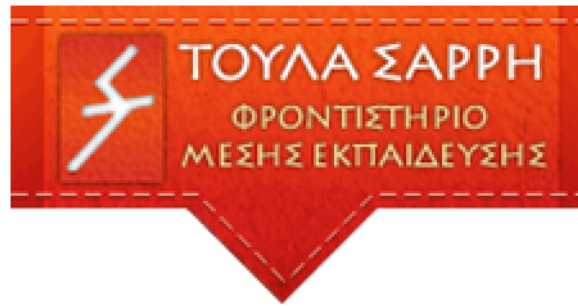
$\cdot f'(x) \quad g'(x)$

$\cdot \mu () C_f \quad \mu \quad \mu \quad x_0 = 1$

$\cdot \mu () C_g \quad \mu \quad \mu \quad x_1 = 2$

$\cdot \mu, \quad \mu () () \mu$

(25)



μ 4

• $f_{\mu}(x) = x^2 + \mu \cdot x + 5 - \mu^2 \quad \mu \in \mathbb{R}.$

• μ f $x_0 = 1$ **(10)**)

• μ **(5)**)

• μ $P(x)$ μ , :

$P(0) = -1, P'(1) = 5 \quad P''(0) = -2$ **(10)**)