**Matematika**

1. f(x)=sin2x funksiyanıng barcha boshlangʻich funksiyalarini toping.

 A.F(x)=2sin4x+c B. F(x)=-2cos2x+C C. F(x)=-0,5cos2x+C

 D. F(x)=0,5cos2x+C

1. Limitni hisoblang: $\lim\_{h\to 0}\frac{3h^{2}-4h}{h}$ .

 A.3 B. -4 C. -3 D. 4

1. Hosilasini hisoblang : $f\left(x\right)=7x^{3}-5x^{2}+4$

 A.$f^{'}(x)$=12x2-10x B.$ f^{'}(x)$=-12x2+10x C. $f^{'}(x)$=21x2-10x D. $f^{'}(x)$=-21x2+10x

1. $f\left(x\right)=\frac{5x+1}{13x-5}$ funksiya hosilasining x0=-2 nuqtadagı qiymatini toping.

A.38/961 B. 38/31 C. -38/31 D. -38/961

1. $f\left(x\right)=x^{3}+2x^{2}+x+3$ funksiyaning kamayish oraligʻini toping.

 A.(-1;1/3) B. (-∞;-1/3] C. (-∞;-1) D. (-1/3;+∞)

1. Moddiy nuqta S(t)=5t3+3t2+2t+4 qonuniyat bilan harakatlanadı, t=2 sekuntdagi tezligini toping.

A. 70 B. 60 C. 74 D. 84

1. Murakkab funksiyaning hosilasini toping. y=x2sinx

 A.y’=2xsinx-x2 B. y’=-2xsinx+x2 C. y’=x2cosx-2xsinx

D. y’=2xsinx+x2cosx

1. f(x)=2x+3 funksiyaning A(1;5) nuqtadan oʻtuvchi dastlabki funksiyalarini toping.

 A.F(x)=x2+3x+1 B. F(x)=x2-3x-1 C. F(x)=x2-3x+1

 D. F(x)=x2+3x-1

1. F(x)=0.2sin(5x+12) funksiyaning hosilasini toping.
2. f(x)=-0,5sin(5x+12) B. f(x)=cos(5x+12) C. f(x)=-cos(5x+12)

D. f(x)=0.5cos(5x+12)

1. f(x)=excosx funksiya uchun f ’(π/2) ni toping.

 A. e-0.5πB. **-**e0,5π C. eπ D. e-π

1. Kubning toʻliq sirtining yuzi 105,84 sm2 boʻlsa, uning qirrasi uzunligini toping.
2. 3.6 B) 4.5 C) 4.2 D) 5.1
3. Uchlari A(2;-3;4) va B(-2;4;5) nuqtalarda boʼlgan AB kesmaning uzunligini toping.
4. $\sqrt{55}$ B) $\sqrt{62}$ C) $\sqrt{56}$ D) $\sqrt{66}$
5. $\vec{a }\left(6;3;2\right)ham \vec{b}\left(-3;1;5\right)bolsa, \vec{c}=\vec{a}+2\vec{b}$ vektorining uzunligini toping.
6. 13 B) 15 C) 14 D) 11
7. a̅(0;-4;2) va b̅(2;2;6) vektorlarining skalyar koʻpaytmasini toping.
8. 10 B. 8 C. 12 D. 4
9. Uchlari ri A(2;3;4) va B(-4;-5;-6) nuqtalarda boʼlgan AB kesmaning oʻrtasining koordinatalarini toping.
10. (-2;2;3) B) (0;-1;1) C) (-1;-1;-1) D) (-2;-2;-2)