Quiz-1

1. Solve the system by Gauss method:
2. Solve the system by Gauss method:
3. Find the eigenvalues and eigenvectors of the matrix .
4. Find the eigenvalues and eigenvectors of the matrix .
5. Find the eigenvalues and eigenvectors of the matrix .
6. Find the inverse matrix, if: .
7. Find the inverse matrix, if: .
8. Find the product .
9. Find the product .
10. Find the product .
11. Find the product of matrices: .
12. Find the product of matrices: .
13. Find the product of matrices: .
14. Build the fundamental system of solutions for the SLAE
15. Build the fundamental system of solutions for the SLAE
16. Build the fundamental system of solutions for the SLAE
17. Build the fundamental system of solutions for the SLAE
18. Calculate the determinant .
19. Calculate the determinant 
20. Find if the vectors are linear dependent: , , .
21. Find the basis in the system of the vectors , , ,
22. Find the coordinates of the vector in basis , , , .
23. Find the rank of the matrix .
24. At which value of  the rank of the matrix  is equal to 2 ?
25. Find the product *BC* for ,  .

Quiz-2

1. Investigate for continuity the function at the given point: at point .
2. Investigate for continuity the function at the given point:at point .
3. Investigate for continuity the function at the given point:  at point .
4. Find the points of discontinuity and determine the types of discontinuities  **.**
5. Find the points of discontinuity and determine the types of discontinuities  .
6. Find the points of discontinuity and determine the types of discontinuities .
7. Find the points of discontinuity and determine the types of discontinuities .
8. Find the limit
9. Find the limit .
10. Find the limit .
11. Find the limit
12. Find  by L’Hospital rule.
13. Find .
14. Find the derivative of function y = 3*x* ln().
15. Find the derivative of function y=).
16. Find the derivative of function y = .
17. Find the extremum of
18. Find the extremum of
19. Find the extremum of y
20. Find asymptotes of the function .
21. Find the asymptotes of the function
22. Find the asymptotes of the function .
23. Find the intervals of convexity of the function
24. Find the intervals of convexity of the function y
25. Find the intervals of convexity of the function

Quiz-3

1. Find the derivative of function y = 3*x* ln().
2. Find the derivative of function y=).
3. Find extremum of the function 
4. Find extremum of the function 
5. Find extremum of the function 
6. Find the extremum of 
7. Find the extremum of .
8. Find the asymptotes of function .
9. Find the asymptotes of function **.**
10. Find the intervals of convexity of the function 
11. Find the intervals of convexity of the function 
12. Find the intervals of convexity of the function 
13. Find the extremum of .
15. .
16. .
17. .
18. . .
19. .
20. Find the limit of the function 
21. Find the limit of the function 
22. Find the limit of the function 
23. Find the limit of the function 