

## Задания к практической работе 2.

Найти решение интегрального уравнения Фредгольма 2-го рода с вырожденным ядром.

$$1. \quad y(x) = \int_{-1}^0 (4x + 2t)y(t) dt + 5x^2 - 4$$

$$2. \quad y(x) = \int_{-2}^1 (3x + t)y(t) dt - x^2 + 3$$

$$3. \quad y(x) = \int_1^3 (x - t)x^2 y(t) dt - x^4 - 1$$

$$4. \quad y(x) = \int_{-2}^{-1} (x + 2)t^2 y(t) dt + x^4 + 2$$

$$5. \quad y(x) = \int_2^3 (1 - x)t y(t) dt - 2x^3 + 1$$

$$6. \quad y(x) = \int_0^3 (t - 3x)t y(t) dt - 3x^3 + 4$$

$$7. \quad y(x) = \int_0^1 (3x - t)y(t) dt + 4x^2 + 1$$

$$8. \quad y(x) = \int_0^3 (t - x)x y(t) dt - 2x^3 - 3$$

$$9. \quad y(x) = \int_{-2}^2 (x + t)x y(t) dt + x^3 - 2$$

$$10. \quad y(x) = \int_0^1 (2 + t)x^3 y(t) dt + x^5 - 1$$

$$11. \quad y(x) = \int_{-2}^2 (x + t)t^2 y(t) dt - x^4 + 4$$

$$12. \quad y(x) = \int_1^2 (t - 4x)t y(t) dt + 4x^3 + 4$$

$$13. \quad y(x) = \int_{-1}^0 (2t - 3x)y(t) dt + 5x^2 - 4$$

$$14. \quad y(x) = \int_{-2}^0 (2x + 5t)y(t) dt - 4x^2 + 2$$

$$15. \quad y(x) = \int_{-2}^0 (2 + t)x y(t) dt + 5x^3 - 2$$

$$16. \quad y(x) = \int_1^2 (x - 5t)y(t) dt + 3x^2 + 3$$

$$17. \quad y(x) = \int_1^3 (x - 2t)x^2 y(t) dt + 2x^4 - 4$$

$$18. \quad y(x) = \int_1^3 (4x - 3)t y(t) dt - 4x^3 - 4$$

$$19. \quad y(x) = \int_{-1}^1 (4 - t)x y(t) dt + 5x^3$$

$$20. \quad y(x) = \int_2^3 (2 + 2t)x y(t) dt - 5x^3 - 2$$

$$21. y(x) = \int_{-2}^2 (x^2 + t^2) y(t) dt + x^3 + 2$$

$$22. y(x) = \int_{-1}^1 (4x + 4t) y(t) dt + x^2 + 2$$

$$23. y(x) = \int_{-1}^1 (4x - 1)t y(t) dt - x^3 + 1$$

$$24. y(x) = \int_{-1}^2 (3x^2 + t) y(t) dt - 2x^3 + 3$$

$$25. y(x) = \int_{-2}^{-1} (x + 3)t^2 y(t) dt + 2x^4 - 4$$

$$26. y(x) = \int_{-2}^0 (x + 2t)t y(t) dt - 3x^3 - 3$$

$$27. y(x) = \int_0^2 (2t^2 - x) y(t) dt - 2x^3 - 1$$

$$28. y(x) = \int_1^2 (2t - 3x) y(t) dt + 4x^2 - 2$$

$$29. y(x) = \int_{-3}^0 (3 - 2t)x^2 y(t) dt - 5x^4 - 4$$

$$30. y(x) = \int_2^3 (5 + t)x^2 y(t) dt + 5x^4 + 5$$