

Трећи домаћи задатак из Математике 2

Израчунаати интеграле:

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| 1. $\int \frac{dx}{2x^2 - 4x + 9}$ | 2. $\int \frac{x - 5}{x^2 - 2x + 2} dx$ | 3. $\int \frac{x^3}{x^2 + x + \frac{1}{2}}$ |
| 4. $\int \frac{dx}{x(x^2 + 2x + 10)}$ | 5. $\int \frac{x^4 + 5x^2 - 3x + 1}{x^2 - 4x + 4} dx$ | 6. $\int \frac{dx}{(x + 1)^2(x^2 + 1)}$ |
| 7. $\int \frac{dx}{(x^2 + 2)^2}$ | 8. $\int \frac{1}{x^4 - 2x^2 + 1} dx$ | 9. $\int \frac{x dx}{(x^2 - x + 1)^3}$ |
| 10. $\int \frac{x^3 + 4x^2 - 2x + 1}{x^4 + x} dx$ | 11. $\int \frac{dx}{(x + 2)^2(x + 3)^2}$ | 12. $\int \frac{x^5 + x^4 - 8}{x^3 - 4x} dx$ |
| 13. $\int \frac{2x^2 + x - 13}{x^3 + 4x^2 - x - 4} dx$ | 14. $\int \frac{x^3 + 8}{x^2 + 4x + 12} dx$ | 15. $\int \frac{5x^2 - 12}{(x^2 - 6x + 13)^2} dx$ |
| 16. $\int \frac{2x + 5}{x^3 - x^2 - 5x - 3} dx$ | 17. $\int \frac{x^3 + 3}{(x + 1)(x^2 + 1)^2} dx$ | 18. $\int \frac{6x^2 + 7x + 18}{x^3 + 2x - 12} dx$ |
| 19. $\int \frac{3 - 4x}{(1 - 2\sqrt{x})^2} dx$ | 20. $\int \frac{(\sqrt{x} + 1)^2}{x^3} dx$ | 21. $\int \frac{dx}{\sqrt{x^2 + x + 1}}$ |
| 22. $\int \frac{5x - 1}{\sqrt{x - x^2}} dx$ | 23. $\int \sqrt{2x^2 + 4x + 1} dx$ | 24. $\int \frac{3x^3 + 5}{\sqrt{x^2 + 8x + 12}} dx$ |
| 25. $\int \frac{1 - \sqrt[3]{2x}}{\sqrt{2x}} dx$ | 26. $\int \frac{dx}{(\sqrt[3]{x^2} + \sqrt[3]{x})^2} dx$ | 27. $\int \sqrt{x} \sqrt{2\sqrt{x} + 5} dx$ |
| 28. $\int \frac{dx}{\sqrt[4]{5 - x} + \sqrt{5 - x}}$ | 29. $\int \frac{x + 1}{(x^2 + 1)^{\frac{3}{2}}} dx$ | 30. $\int \frac{2x + 1}{\sqrt{(4x^2 - 2x + 1)^3}} dx$ |
| 31. $\int \frac{x dx}{\sqrt{3x + 2} + 3}$ | 32. $\int \frac{x^2 + 3x}{\sqrt[3]{x - 1}} dx$ | 33. $\int \sqrt{\frac{8x + 2}{2x - 3}} dx$ |