

ΑΟΡΙΣΤΑ ΟΛΟΚΛΗΡΩΜΑΤΑ

$$1. \int \left(x - \frac{4}{\sqrt{x}} + \frac{1}{x} - \frac{2}{x^2} - \alpha \right) dx$$

$$2. \int \left(3\sqrt{x} + \frac{3}{x^2} + 2e^x \right) dx$$

$$3. \int 9x^2 \sqrt{x^3 + 5} dx$$

$$4. \int \eta\mu 2x \cdot \sigma\upsilon\nu^6 x dx$$

$$5. \int \frac{\eta\mu^3 x}{\sigma\upsilon\nu^2 x} dx$$

$$6. \int 10 \frac{\eta\mu^4 x}{\sigma\upsilon\nu^6 x} dx$$

$$7. \int \eta\mu^2 3x dx$$

$$8. \int 4\sigma\upsilon\nu^3 4x dx$$

$$9. \int \varepsilon\phi^4 2x dx$$

$$10. \int \sqrt{x} \sqrt{1+x^{\frac{3}{2}}} dx$$

$$11. \int e^x (1 - e^x)^3 dx$$

$$12. \int e^{\alpha x} \eta\mu\beta x dx$$

$$13. \int x(x+1)^7 dx$$

$$14. \int (x+1)e^x dx$$

$$15. \int (\eta\mu(2x-3) + x\sqrt{x^2-5}) dx$$

$$16. \int \frac{dx}{\sqrt{16-9x^2}}$$

$$17. \int \frac{dx}{9x^2+4}$$

$$18. \int \frac{x-3}{x^2-3x+2} dx$$

$$19. \int \eta\mu 3x \sigma\upsilon\nu 4x dx$$

$$20. \int \frac{dx}{5+4\sigma\upsilon\nu x}$$

$$21. \int \frac{dx}{x^2 \sqrt{1+x^2}}$$

$$22. \int \frac{dx}{1+\eta\mu x}$$

$$23. \int \frac{x dx}{\sqrt{x+3}}$$

$$24. \int \frac{dx}{e^x + e^{-x}}$$

$$25. \int \frac{dx}{3+\sqrt{x+1}}$$

$$26. \int \sigma\upsilon\nu^2 x \eta\mu^3 x dx$$

$$27. \int x e^{-\alpha x} dx$$

$$28. \int \frac{3x+5}{x^2+4} dx$$

$$29. \int \frac{x^2+1}{(x+1)(x-1)} dx$$

$$30. \int \frac{3x}{\sqrt{4-x}} dx$$

$$31. \int \frac{x-1}{(x+1)(x^2+1)} dx$$

$$32. \int \frac{dx}{(x-1)^2(x-2)}$$

$$33. \int \frac{\sqrt{x+2}}{x-7} dx$$

$$34. \int \frac{\tau\varepsilon\mu^2 x}{\sqrt{2-\varepsilon\phi x}} dx$$

$$35. \int e^{2x} \eta\mu 3x dx$$

$$36. \int \frac{x^2+10x+6}{x^2+2x-8} dx$$

$$37. \int \frac{2x-1}{x^2+1} dx$$

$$38. \int x^2 \sqrt{1-2x} dx$$

$$39. \int \frac{dx}{x^2 \sqrt{1-x^2}}, \quad x = \eta\mu\theta, \frac{\pi}{2} < \theta < \pi$$

$$40. \int x \sqrt{7-2x} dx$$

$$41. \int \sigma\upsilon\nu^2(3x-1) dx$$

$$42. \int \sqrt{1-\sigma\upsilon\nu 4x} dx$$

$$43. \int \frac{dx}{1+e^{-x}}$$

$$44. \int \frac{dx}{x^2-2x+2}$$

$$45. \int \left(1 - x - \frac{1}{x} + \sqrt{x} \right) dx$$

$$46. \int \frac{x dx}{\sqrt{2x-1}}$$

$$47. \int \sqrt{1-\eta\mu 2x} dx$$

$$48. \int \frac{dx}{3-e^{-x}}$$

$$49. \int \frac{dx}{\sqrt{2-x-3}}$$

$$50. \int \frac{2x+1}{x^2-2x+2} dx$$

$$51. \int \frac{x^2+4x-3}{x(x^2-4x+3)} dx$$

$$52. \int \frac{2}{2+\eta\mu 2x+\sigma\upsilon\nu 2x} dx, \quad t = \varepsilon\phi x$$

$$53. \int \frac{2x\eta\mu x}{\sigma\upsilon\nu^3 x} dx$$

$$54. \int \ln^2 x dx$$

$$55. \int \frac{2}{x \ln x} dx$$

$$56. \int \frac{dx}{3+2\sigma\upsilon\nu x-\eta\mu x}, \quad t = \varepsilon\phi \frac{x}{2}$$

$$57. \int \frac{7x-x^2}{(2-x)(x^2+1)} dx$$

$$58. \int \sigma\tau\varepsilon\mu x dx$$

$$59. \int \tau\omicron\xi\sigma\upsilon\nu x dx$$

$$60. \int \frac{9e^x}{3+e^{-x}} dx$$

$$61. \int \sqrt{4-x^2} dx, \quad x = 2\eta\mu\theta, \quad 0 < \theta < \frac{\pi}{2}$$

$$62. \int \sqrt{25-16x^2} dx, \quad x = \frac{5}{4}\eta\mu\theta, \quad 0 < \theta < \frac{\pi}{2}$$

$$63. \int \eta\mu^4 x \sigma\upsilon\nu^3 x dx$$

$$64. \int \eta\mu x \left(\frac{1}{x^2} - \ln x \right) dx$$

$$65. \int \frac{x^2+1}{x^2-2x+2} dx$$

$$66. \int \eta\mu 2x \eta\mu x dx$$

ΑΠΑΝΤΗΣΕΙΣ

1. $\frac{x^2}{2} - 8\sqrt{x} + \ln(x + \frac{2}{x} - ax + k)$

2. $2x^{\frac{3}{2}} - \frac{3}{x} + 2e^2x + k$

3. $2(x^3 + 5)^{\frac{3}{2}} + k$

4. $-\frac{1}{4}\sigma\upsilon\nu^8x + k$

5. $\tau\epsilon\mu x + \sigma\upsilon\nu x + k$

6. $2\epsilon\varphi^5x + k$

7. $\frac{x}{2} - \frac{1}{12}\eta\mu 6x + k$

8. $\frac{1}{12}\eta\mu 12x + \frac{3}{4}\eta\mu 4x + k$

9. $\frac{1}{6}\epsilon\varphi^3 2x - \frac{1}{2}\epsilon\varphi 2x + x + k$

10. $\frac{4}{9}(1 + x^{\frac{3}{2}})^{\frac{3}{2}} + k$

11. $-\frac{1}{4}(1 - e^x)^4 + k$

12. $\frac{e^{\alpha x}}{\alpha^2 + \beta^2}(\alpha\eta\mu\beta x - \beta\sigma\upsilon\nu\beta x) + k$

13. $\frac{1}{72}(8x - 1)(x + 1)^8 + k$

14. $xe^x + k$

15. $-\frac{1}{2}\sigma\upsilon\nu(2x - 3) + \frac{1}{3}(x^2 - 5)^{\frac{3}{2}} + k$

16. $\frac{1}{3}\tau\omicron\xi\eta\mu\left(\frac{3x}{4}\right) + k$

17. $\frac{1}{6}\tau\omicron\xi\epsilon\varphi\left(\frac{3x}{2}\right) + k$

18. $-\ln|x - 2| + 2\ln|x - 1| + k$

19. $\frac{1}{2}\sigma\upsilon\nu x - \frac{1}{14}\sigma\upsilon\nu 7x + k$

20. $\frac{2}{3}\tau\omicron\xi\epsilon\varphi\left(\frac{1}{3}\epsilon\varphi\frac{x}{2}\right) + k$

21. $-\frac{\sqrt{1+x^2}}{x} + k$

22. $\epsilon\varphi x - \tau\epsilon\mu x + k \quad \eta \quad -\frac{2}{1 + \epsilon\varphi\frac{x}{2}} + k$

23. $\frac{2}{3}(x - 6)\sqrt{x + 3} + k$

24. $\tau\omicron\xi\epsilon\varphi(e^x) + k$

25. $2\sqrt{x+1} - 6\ln|\sqrt{x+1} + 3| + k$

26. $\frac{\sigma\upsilon\nu^3x}{3} - \frac{\sigma\upsilon\nu^5x}{5} + k$

27. $-\frac{\alpha x + 1}{\alpha^2}e^{-\alpha x} + k$

28. $\frac{3}{2}\ln(x^2 + 4) + \frac{5}{2}\tau\omicron\xi\epsilon\varphi\frac{x}{2} + k$

29. $x + \ln\left|\frac{x-1}{x+1}\right| + k$

30. $-2(x + 8)\sqrt{4 - x} + k$

31. $\ln\frac{\sqrt{x^2+1}}{|x+1|} + k$

32. $\frac{1}{x-1} + \ln\left|\frac{x-2}{x-1}\right| + k$

33. $2\sqrt{x+2} + 3\ln\left(\frac{\sqrt{x+2}-3}{\sqrt{x+2}+3}\right) + k$

34. $-2\sqrt{2 - \epsilon\varphi x} + k$

35. $\frac{e^{2x}}{13}(2\eta\mu 3x - 3\sigma\upsilon\nu 3x) + k$

36. $x + \ln|(x - 2)^5(x + 4)^4| + k$

37. $\ln(x^2 + 1) - \tau\omicron\xi\epsilon\varphi x + k$

38. $\frac{(1-2x)^{\frac{5}{2}}}{10} - \frac{(1-2x)^{\frac{3}{2}}}{12} - \frac{(1-2x)^{\frac{1}{2}}}{28} + k$

39. $-\frac{\sqrt{1-x^2}}{x} + k$

40. $\frac{1}{10}(7-2x)^{\frac{5}{2}} - \frac{7}{6}(7-2x)^{\frac{3}{2}} + k$

41. $\frac{x}{2} + \frac{\eta\mu(6x-2)}{12} + k$

42. $-\frac{\sqrt{2}}{2}\sigma\upsilon\nu 2x + k$

43. $\ln(1 + e^x) + k$

44. $\tau\omicron\xi\epsilon\varphi(x - 1) + k$

45. $x - \frac{x^2}{2} - \ln(x + \frac{2}{3}x^{\frac{3}{2}} + k)$

46. $\frac{x+1}{3}\sqrt{2x-1} + k$

47. $-\sigma\upsilon\nu x - \eta\mu x + k$

48. $\frac{1}{3}\ln(3e^x - 1) + k$

49. $-2\sqrt{2-x} - 6\ln(\sqrt{2-x} - 3) + k$

50. $\ln(x^2 - 2x + 2) + 3\tau\omicron\xi\epsilon\varphi(x - 1) + k$

51. $\ln\left|\frac{(x-3)^3}{x(x-1)}\right| + k$

52. $\frac{2}{\sqrt{2}}\tau\omicron\xi\epsilon\varphi\left(\frac{\epsilon\varphi x + 1}{\sqrt{2}}\right) + k$

53. $x\tau\epsilon\mu^2x - \epsilon\varphi x + k$

54. $\frac{x^2}{4}(2\ln^2x - 2\ln x + 1) + k$

55. $2\ln|\ln x| + k$

56. $\tau\omicron\xi\epsilon\varphi\left(\frac{\epsilon\varphi\frac{x}{2} - 1}{2}\right) + k$

57. $\frac{1}{2}\ln\left|\frac{(x^2-1)^3}{(2-x)^4}\right| - \tau\omicron\xi\epsilon\varphi x + k$

58. $\ln\left|\epsilon\varphi\frac{x}{2}\right| + k$

59. $x\tau\omicron\xi\sigma\upsilon\nu x - \sqrt{1-x^2} + k$

60. $3e^x - \ln(3e^x + 1) + k$

61. $2\tau\omicron\xi\eta\mu\frac{x}{2} + \frac{x}{2}\sqrt{4-x^2} + k$

62. $\frac{25}{8}\tau\omicron\xi\eta\mu\frac{4x}{5} + \frac{x}{2}\sqrt{25-16x^2} + k$

63. $\frac{\eta\mu^5x}{5} - \frac{\eta\mu^7x}{7} + k$

64. $\ln x \cdot \sigma\upsilon\nu x - \frac{\eta\mu x}{x} + k$

65. $x + \ln(x^2 - 2x + 2) + \tau\omicron\xi\epsilon\varphi(x - 1) + k$

66. $\frac{2\eta\mu^3x}{3} + k$