Esercizi del Corso di Recupero Ofa di Matematica

1 Quarta lezione:

1. $$\log_9(x) + \log_{27}(x) = \frac{5}{6}$$
2. $$\log\left(2x^2 - x\right) = 0$$
3. $$\log^2 x - \log x - 2 = 0$$
4. $$\log\left(e^x + e\right) = 2$$
5. $$\frac{e^{3x^3}e^3}{e^{2x}} = e^{2x^2+x+1}$$
6. $$2^{1-\frac{1}{x}} = \frac{\sqrt[x]{3^{x+1}}}{9}$$
7. $$2^{x^2-5x+6} = 1$$
8. $$3^{x+1} - 2^x = 2^{x+3} - 3^{x-1}$$
9. $$2^{x+2} = 5^{x+1}$$
10. $$\log_7(2x+3) > 1$$
11. $$\log_{\frac{1}{2}}(3x) \geq 3$$
12. $$\log_3(x+1) \geq \log_9(2x+3)$$
13. $$2\log x - 2\log(x+2) > 0$$
14. $$\log_2 \frac{x+3}{x} > 0$$

15. $$\log_{\frac{1}{2}}(3x+7) \geq \log_2(2x-5)$$

16. $$\left(\frac{1}{3}\right)^x > \frac{1}{27}$$

17. $$3^{2x-1} \geq 4$$

18. $$2^{-2x} - 4 \cdot 2^x \geq 0$$

19. $$3^{x-1} > -5^{3x}$$

20. $$3^{x-1} > 5^{3x}$$

21. $$\frac{2^{x-1} \cdot 4^{1+x}}{6^{1-x}} < 3$$