Grafici di Funzioni Elementari

Senza ricorrere agli strumenti dell'analisi, tracciare il grafico delle seguenti funzioni

Prof. Roberto Squellati – Classi V

29 ottobre 2005

1. $y = \left(\sqrt{x-1}\right)^2$
2. $y = \operatorname{sen}(x + |x|)$
3. $y = \sqrt{(x-1)^2}$
4. $y = e^{(x+|x|)/2}$
5. $y = \tan(x + |x|)$
6. $y = \log \sqrt[5]{(x-1)^2 |x-1|^3}$
7. $y = \operatorname{sen}\left(x + \dfrac{\pi |x|}{2x}\right)$
8. $y = e^{\frac{x^2-|x|}{x}}$
9. $y = \operatorname{sen}|x| + \cos|x|$
10. $y = e^{\frac{x^2+2|x|+1}{x+(|x|/x)}}$
11. $y = \dfrac{|x| + |4-x| - 2}{x+5}$
12. $y = e^{\log(\operatorname{sen} x) - \log(\cos x)}$
13. $y = \left|x^2 - 1\right| + |x-1| + 1$
14. $y = \arctan(\tan x)$
15. $y = \sqrt{x^2 - 2x + 2 + 2|x-1|}$
16. $y = \cos(x + |x|)$
17. $y = \left|1 - \sqrt{e^{2|x|} + 2e^{|x|} + 1}\right|$
18. $y = \arctan(\tan|x|)$
19. $|x|\,|y| = 1$
20. $y = \operatorname{arcsen}(\operatorname{sen} x)$
21. $y = \dfrac{|3-x| + |x|}{|x-1|}$
22. $y = \operatorname{arcsen}(\operatorname{sen}|x|)$
23. $y = -\sqrt{x^2+4}$
24. $y = \operatorname{sen}(\operatorname{arcsen} x)$
25. $y = \dfrac{|x|}{x-3} - \dfrac{1}{|3-x|}$
26. $y = 4 \operatorname{sen} x \cos x \left(\cos^2 x - \operatorname{sen}^2 x\right)$
27. $y = \sqrt{x\,|x| + 1}$
28. $y = e^{2\log\left(\sqrt{\operatorname{sen} x}\right)}$
29. $x = \sqrt{9y\,|y| + 1}$
30. $\dfrac{x\,|x|}{4} + \dfrac{y\,|y|}{9} = 1$
31. $y = \tan(\arctan x)$
32. $\dfrac{|x|}{y} + \dfrac{|y|}{x} = \dfrac{1}{xy}$
33. $y = 1 + \dfrac{\sqrt{2}}{2(\operatorname{sen} x + \cos x)}$
34. $x = \left|1 - \sqrt{y}\right|$
35. $y = |1 + \operatorname{sen} x + \cos x|$
36. $|x| + \left|y^2 - 4\right| - 4 = 0$
37. $y = \left|\tan\left|x + \dfrac{\pi}{3}\right|\right|$
38. $x = \sqrt{|y| + 1}$
39. $4\,|xy| = -9$
40. $y = \sqrt[4]{x^2 - 2x + 1}$
41. $y = \dfrac{\operatorname{sen}^2 x}{1 - \cos x}$
42. $y = e^{\ln|x-1|} + e^{\ln|x-2|}$
43. $y = \left|\dfrac{\cos(5x)\operatorname{sen}(3x)}{\operatorname{sen}(8x) - \operatorname{sen}(2x)}\right|$
44. $y = \ln e^{|1-x^2|} - \ln e^{|x^2-3|}$
45. $y = \sqrt{x^4 - 2x^3 - 3x^2 + 4x + 4}$
46. $y = \left|\dfrac{\operatorname{sen} 3x + \operatorname{sen} 5x}{\operatorname{sen} 4x}\right|$
47. $y = e^{\ln|x-2|} \cdot e^{\ln|x-3|}$
48. $y = 4 \operatorname{sen}\left(|x| + \dfrac{3}{2}\pi\right) \cdot \dfrac{\operatorname{sen}(7\,|x|)\operatorname{sen}(5\,|x|)}{\cos(12\,|x|) - \cos(2\,|x|)}$
49. $y = \ln\left|x^4 - x^3 - 3x^2 + 5x - 2\right| - \ln\left|x^3 - 3x + 2\right|$
50. $y = e^{\operatorname{sen} x + \cos x}$