Equazioni elementari

Interpretare graficamente e risolvere le seguenti equazioni

1. Polinomiali

$x^5 = 0$ $\quad$ $3x^4 = 7$ $\quad$ $11x^6 = -1$

$x^9 = -1$ $\quad$ $2x^4 + 1 = 0$ $\quad$ $2x^4 - 1 = 0$

$5x^{100} = 0$ $\quad$ $x^3 = \dfrac{1}{1000}$ $\quad$ $-2x^5 + 6 = 0$

$-x^2 \cdot x^4 = -1$ $\quad$ $\dfrac{3x^5}{x^3} = 9$ $\quad$ $\dfrac{(x^2)^4}{(x^4)^2} = -2$

2. Irrazionali

$\sqrt[3]{x} = 2$ $\quad$ $2\sqrt{x} = 4$ $\quad$ $\sqrt[4]{x} = -1$

$3\sqrt[5]{x} = 6$ $\quad$ $\sqrt[3]{x} + 1 = 0$ $\quad$ $\sqrt[6]{x} = 0$

$4\sqrt[3]{x} + 2 = 0$ $\quad$ $\sqrt{x} + 1 = -6$ $\quad$ $\sqrt[4]{x} + 2e = 3e$

3. Esponenziali

$3^x = 81$ $\quad$ $3^x = \dfrac{1}{9}$ $\quad$ $\left(\dfrac{1}{4}\right)^x = 1$

$2^x = 16$ $\quad$ $2^x = -16$ $\quad$ $2^x = 3$

$\pi^x = 0$ $\quad$ $7^x = \sqrt[5]{49}$ $\quad$ $4^x = 2$

$(0,9)^x = 0$ $\quad$ $4^x - 6 = 0$ $\quad$ $\left(\dfrac{1}{3}\right)^x = 9$

$10^x - 0,001 = 0$ $\quad$ $e^x + 4 = 0$ $\quad$ $\dfrac{3^{2x}}{3^{3x}} = 5$

4. Logaritmiche

$\log_3 x = 2$ $\quad$ $\log_3 x = \dfrac{1}{2}$ $\quad$ $\log_{\frac{1}{2}} x = -2$

$3\log_2(x) - 9 = 0$ $\quad$ $\log_4 x = 0$ $\quad$ $2 + \log_{\frac{5}{4}} x = 0$

$\log x = 5$ $\quad$ $\log_{\frac{1}{4}} x = -1$ $\quad$ $\log_2 x = \dfrac{1}{3}$

$\log_{\frac{\pi}{4}} x = 0$ $\quad$ $\log x = 0$ $\quad$ $\log_4 x = \sqrt{2}$

5. Goniometriche

$\sin x = -1$	$\cos x + 3 = 0$	$\tan x$=0
$(\sin x)^2 + (\cos x)^2 = -1$	$\cos x = (0,3)^{-1}$	$\frac{3\cos x}{10} = 1$
$4 \arctan x - \pi = 0$	$4 \arctan x - 4\pi = 0$	$\arccos x = 0$
$\arccos x = \frac{\pi}{2}$	$\arcsin x = -4$	$2 \arcsin x = 0$

Nota: Il simbolo log denota il logaritmo in base e (**numero di Nepero**)