

STUDIO DOMINIO FUNZIONI

$D: x \geq -3$

x a) $y = \sqrt{x+3}$

$D: \mathbb{R} - \{5\}$ c) $y = \frac{2x}{x-5} \neq 0$

e) $y = \frac{4x^3 - 5x}{9x^2 - 12x + 4} \neq 0$

g) $y = \frac{3x-9}{x+2} \geq 0$

i) $y = \sqrt{x^3 + x^2 - 9x - 9} \geq 0$

m) $y = \sqrt{\frac{x^2 + 5x + 6}{x+1}} \geq 0$

o) $y = \sqrt{3x^2 - 9x} \geq 0$

q) $y = \frac{2x}{4x^2 + 28} \neq 0$

b) $y = \frac{1}{(4x-8)(x+5)}$ $D: \mathbb{R} - \{2, -5\}$

d) $y = \frac{1}{(7-x)(10x-5)} \geq 0$

f) $y = \frac{\sqrt{2x^2 - 3x - 5}}{24} \geq 0$

h) $y = \frac{\sqrt{x^2 - 36}}{x+3} \geq 0$

l) $y = \frac{1}{4}x^2 + \frac{2}{3}x + \frac{1}{5}$

n) $y = \frac{4x^2 - 6}{x^2 - x + 4} \neq 0$

p) $y = \frac{1}{3x^2 - 5x - 2} \neq 0$

r) $y = x^2 + 2x + 1$ \mathbb{R}

$D: \mathbb{R}$

$$y = \sqrt{(7-x)(10x-5)}$$

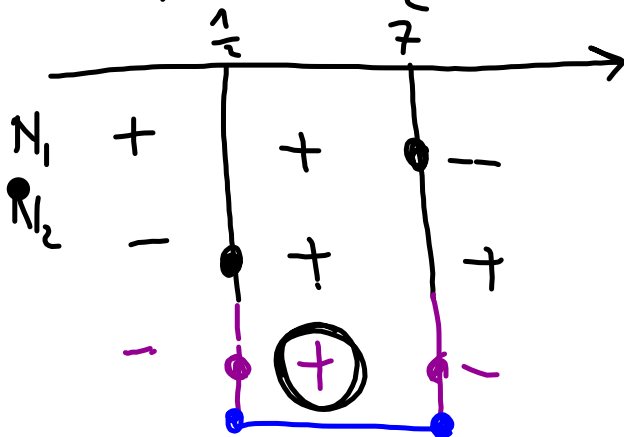
$$\underbrace{(7-x)}_{N_1} \underbrace{(10x-5)}_{N_2} \geq 0$$

$$N_1: 7-x \geq 0 \quad -x \geq -7$$

$$x \leq 7$$

$$N_2: 10x-5 \geq 0$$

$$10x \geq 5 \quad x \geq \frac{1}{2}$$



$$D: \frac{1}{2} \leq x \leq 7$$

$$y = \frac{1}{\underbrace{(7-x)}_{N_1} \underbrace{(10x-5)}_{N_2}}$$

$$7-x=0 \quad -x=-7$$

$$x=7$$

$$10x=5 \quad x=\frac{1}{2}$$

$$D: \mathbb{R} - \left\{+7, \frac{1}{2}\right\}$$

$$y = \frac{1}{2}x^2 + \frac{3}{2}x - 4 \quad D: \mathbb{R}$$

$$y = \frac{1}{\frac{1}{2}x^2 + 3x - 4} \neq 0$$

$$y = \sqrt{\frac{1}{2}x^2 + 3x - 4} \geq 0$$

$$y = \frac{4x^3 - 5x}{9x^2 - 12x + 4}$$

$$9x^2 - 12x + 4 = 0 \quad D: \mathbb{R} - \left\{ \frac{2}{3} \right\}$$

$$\Delta = 144 - 144 = 0$$

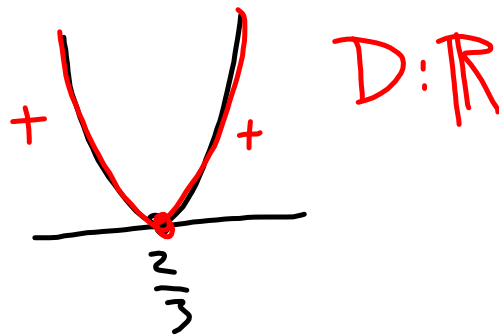
$$x_1 \cdot x_2 = \frac{12}{18} = \frac{2}{3}$$

$$y = \sqrt{9x^2 - 12x + 4}$$

$$9x^2 - 12x + 4 \geq 0$$

$$\Delta = 0$$

$$x_1 = x_2 = \frac{2}{3}$$



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$$y = \frac{\sqrt{x^2 - 36}}{x + 3}$$

$$x^2 - 36 \geq 0$$

$$x^2 - 36 = 0 \quad x^2 = 36 \quad x = \pm 6$$

$$D: x \neq -3 \\ x \leq -6 \vee x \geq 6$$

