Es 336

$2x(2x^2+3)+4x^2-3(2x^2+1)>0$

↳ SVOLGO CALCOLI

$4x^3+6x+4x^2-6x^2-3>0$

$4x^3-2x^2+6x-3>0$

$2x^2(2x-1)+3(2x-1)>0$

$(2x^2+3)(2x-1)>0$

$\forall x \in \mathbb{R}$ CON $2x^2>-3$ * $x>\frac{1}{2}$

$\{S: x>\frac{1}{2}\}$

$S:]1/2; +\infty[$

COMPITI

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$x^5+6x^4+9x^3>0$

$x^3(x^2+6x+9)>0$

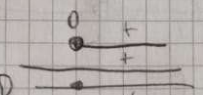
x CONV.

$x^3>0 \quad x>0$

x^2+6x+9

$(x+3)^2>0 \quad \forall x\in\mathbb{R}$

$x\neq -3$



S: $x>0$ S: $]0;+\infty[$

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$x^4-5x^3-x+5<0$

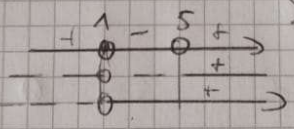
$x(x^3-1)-5(x^3-1)<0$

$(x-5)(x^3-1)<0$

x CONV. $x-5>0$

$x>5$

$x^3>1 \quad x>1$



S: $\{-1<x<5\}$

S: $]-1;5[$

es 331

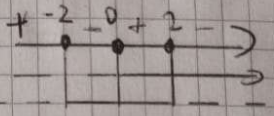
$16x-x^5\geq 0$

$x(16-x^4)\geq 0$

x CONV $x\geq 0$

$16-x^4\geq 0$

$x^4\leq 16 \quad -2\leq x\leq 2$



S: $\{x\leq -2 \vee 0\leq x\leq 2\}$

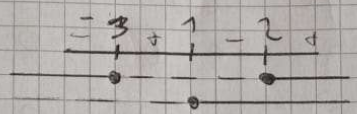
S: $]-\infty;-2]\cup[0;2]$

$(x^2+x-6)(x-1)\geq 0$

C.E. $x \geq 1$

$x^2+x-6 \geq 0$

$\Delta = -3 \vee 2$



$x \leq -3 \vee x \geq 2$

$S: \{-3 \leq x \leq 1 \vee x \geq 2\}$

$S: [-3; 1] \vee [2; +\infty[$

es 35 n

$x^3 - 4x^2 - 3x + 18 \leq 0$

$x^2(x-4) - 3(x+6)$ no

Δ $\pm 1; \pm 2; \pm 3; \pm 6; \pm 18$

$x^3 - 4x^2 - 3x + 18 = 0$

$1 - 4 - 3 + 18 \neq 0$

$-1 + 4 + 3 + 18 \neq 0$

$+8 - 16 - 6 + 18$

$-2 \quad -8 - 16 + 6 + 18 = 0$

	1	-4	-3	18
	↓	-2	+12	-18
-2	1	-6	9	0

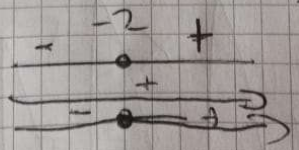
$x^2 - 6x + 9 \geq 0$

$(x-3)^2 \geq 0 \quad \forall x \in \mathbb{R}$

$x+2 \geq 0 \quad x \geq -2$

$(x^2-6x+9)(x+2) \leq 0$

$x \geq -2$



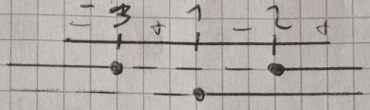
$(x^2+x-6)(x-1)\geq 0$

C.E. $x \geq 1$

$x^2+x-6 \geq 0$

$\Delta = 25$

$x_1 = -3 \quad x_2 = 2$



$x \leq -3 \vee x \geq 2$

$S: \{-3 \leq x \leq 1 \vee x \geq 2\}$

$S: [-3; 1] \cup [2; +\infty[$

es 35

$x^3 - 4x^2 - 3x + 18 \leq 0$

$x^2(x-4) - 3(x+6)$ no

Δ $\pm 1; \pm 2; \pm 3; \pm 6; \pm 18$

$x^3 - 4x^2 - 3x + 18 = 0$

$1 - 4 - 3 + 18 \neq 0$

$-1 + 4 + 3 + 18 \neq 0$

$+8 - 16 - 6 + 18$

$-2 \quad -8 - 16 + 6 + 18 = 0$

	1	-4	-3	18
		-2	+12	-18
-2	1	-6	9	0

$x^2 - 6x + 9 \geq 0$

$(x-3)^2 \geq 0 \quad \forall x \in \mathbb{R}$

$x+2 \geq 0 \quad x \geq -2$

$(x^2-6x+9)(x+2) \leq 0$

$x \geq -2$