es 482

n = t. ostodo $\in \mathbb{R}^+$

$$\frac{1}{n} + \frac{1}{2} \geq 1$$

$$\frac{3}{2} n \leq 1$$

$$\frac{1+2-n}{n} \geq 0 \qquad \frac{2}{3}$$

N $\quad 3 - n \geq 0 \qquad n \leq 3 \qquad$ tra 0 e 3

D $\quad n \geq 0$

$-\ \ 0\ \ +\ \ 3\ \ -$

ma al massimo $\Rightarrow$ 3

$S = \{3\}$

Es 517

$b = 5 - 2x$

$h = 3x - 1$

$b > h$

$A \in \mathbb{R}^+ \Rightarrow x \in \mathbb{R}^+$

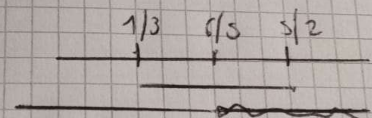
$$(5-2x)(3x-1) > 0$$
$$(5-2x) > (3x-1)$$

1°

$$15x - 5 - 6x^2 + 2x > 0$$
$$6x^2 - 17x + 5 < 0$$
$$x_{1,2} = \frac{17 \pm \sqrt{169}}{12} = \frac{30}{12} \;;\; \frac{4}{12}$$

$$\frac{1}{3} < x < \frac{5}{2}$$

$$(5-2x) > (3x-1)$$
$$-5x + 6 > 0$$
$$5x - 6 < 0$$
$$\frac{5x}{5} < \frac{6}{5}$$



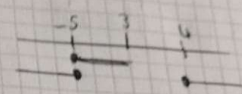
$\left]\frac{1}{3} ; \frac{6}{5}\right[$ $\quad S: \left\{ \frac{1}{3} < x < \frac{6}{5} \right\}$

$[-7; -3]$
$\left[-\frac{3}{2}; 5\right]$
$[\sqrt{2}; 2\sqrt{2}]$
$\varnothing$
$[\pm 9]$
[3; doppia]
$[0; 1]$
$\left[0; -\frac{9}{7}\right]$
$\left[-1; \frac{1}{2}\right]$
$\left[\frac{1}{3}; -\frac{7}{3}\right]$
$[(1; -1)$
$\left[\left(-\frac{1}{2}\right.\right.$
$-\frac{3}{2}$

Compiti

es 498

$$\begin{cases} (x+1)^2 \leq 16 \\ x(x-7) \geq 4(5-2x) \end{cases}$$



1° TERM

$x^2 + 1 + 2x - 16 < 0$

$x^2 + 2x - 15 < 0$ S: $-5 < x < 3$

EA $x_{1,2} = -1 \pm 4$ $-5\,;\,3$

2° TERM

$\cancel{x^2 - 7x \geq 20 - 8x}$ $x^2 - 7x \geq 20 - 8x$

$\cancel{x^2 - 7x - 20 \geq 0}$ $x^2 + x - 20 \geq 0$

EA $\cancel{x_{1,2} = 7 \pm \sqrt{49+}}$ $x_{1,2} = \dfrac{-1 \pm \sqrt{1+80}}{2} = \begin{cases} 4 \\ -5 \end{cases}$ $x \leq -5 \vee x \geq 4$

S: $\{5\}$

S = 5

es sole

$$\begin{cases} 2x - 3 < 0 \\ 1 - x \leq 0 \\ 1 - 4x^2 \geq 0 \end{cases}$$

1° $\frac{2x}{2} < \frac{3}{2}$ $x < \frac{3}{2}$

2° $1 - x \leq 0$ $x \geq 1$

$4x^2 - 1 \leq 0$

$4x^2 = 1$

$x^2 = \frac{1}{4}$ $x = \pm\frac{1}{2}$

$-\frac{1}{2} \leq x \leq \frac{1}{2}$

S: $\{\cancel{\exists}\, x \in \mathbb{R}\}$ S: $\varnothing$

$[-7; -3]$

$\left[-\frac{3}{2}; 5\right]$

$[\sqrt{2}; 2\sqrt{2}]$

$\varnothing$

$[\pm 9]$

[3; doppia]

$[0; 1]$

$\left[0; -\frac{9}{7}\right]$

$\left[-1; \frac{1}{2}\right]$

$\left[\frac{1}{3}; -\frac{7}{3}\right]$

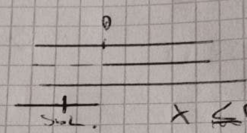
es 536

$$\begin{cases} \dfrac{1+x^2}{3x} \leq 0 \\ x < (x+2)(3-x) \end{cases}$$

1° $\dfrac{1+x^2}{3x} \leq 0$

N $x^2+1 \geq 0$ S: $\forall x \in \mathbb{R}$

D $3x > 0$ $x > 0$



$x \leq 0$

2° $x < 3x - x^2 + 6 - 2x$

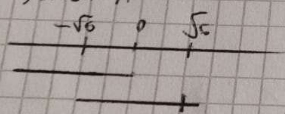
$x^2 < 6$

EA $-\sqrt{6} < x < \sqrt{6}$

$x^2 = 6$

$x = \pm\sqrt{6}$

SCHEMA



S: $-\sqrt{6} < x < 0$

S: $]-\sqrt{6}; 0[$