

es 247

$$x = b \cdot s \in \mathbb{R}^+$$

$$b \neq \frac{1}{3} \quad h = 8$$

$$|b \cdot h|^2 \leq 30$$

$$\begin{matrix} \uparrow \\ \mathbb{R} \end{matrix} \quad b$$

es 250

~~x~~

$$B+b=10 \text{ cm} + 2h$$

$$B+b=2 \in \mathbb{R}^+$$

$$\frac{(B+b) \cdot h}{2} \geq 300$$

$$\begin{cases} x = 10 + 2 \cdot y \\ \frac{x \cdot y}{2} \geq 300 \end{cases}$$

es 468

$$\frac{6-4x}{x^2+2x-3} + \frac{x+3}{x-1} \leq \frac{2}{x+3}$$

$$\frac{6x-6+6x+18-4x^2+4x-4x^2-12x+x^3+2x^2-7x+7x^2+6x-9}{(x^2+2x-3)(x-1)(x+3)} = \frac{2x^3+4x-68x-2}{(x^2+2x-3)(x-1)}$$

$$\frac{6x-6+6x+18-4x^2+4x-4x^2-12x+x^3+2x^2-3x+3x^2+6x-9}{(x^2+2x-3)(x-1)(x+3)} = \frac{2x^3-4x+6-2x+2}{(x^2+2x-3)(x-1)}$$

$$\frac{x^3+x-5x^2+11}{(x^2+2x-3)(x-1)(x+3)} \leq 0$$

$$N \geq 0 \quad x^3-5x^2+x+11 > 0$$

$$D > 0 \quad x^2+2x-3 > 0$$

$$x_{1,2} = \frac{-1 \pm \sqrt{1+3}}{2} < -3$$

$$x > 1$$

$$x > -3$$

es 472

$$\frac{x}{x+3} + \frac{2(7x+9)}{x^2+x-6} > \frac{x+4}{2-x}$$

$$\frac{x^3+x^2-6x+2-x^2+14x^2+18x+6}{(x^2+x-6)(x+3)(2-x)} > \frac{-x^3-x^2+6x}{(x^2+x-6)(x+3)(2-x)}$$

$$\frac{2x^3+15x^2+16x+8}{(x^2+x-6)(x+3)(2-x)} > 0$$

$$x^2(2x+15) + 2(12x+14) > 0$$

$$D > 0 \quad x^2+x-6 > 0$$

$$x_{1,2} = \frac{-1 \pm \sqrt{1+24}}{2} = \frac{-1 \pm 5}{2}$$

$$x > -2$$

$$x < 2$$

25.4.11

$n, m \in \mathbb{N}$

$$\frac{1}{n} + \frac{1}{3n} \leq 4$$

$$\frac{4n(1+3) + 4n}{4n(3+n)} \leq \frac{3n+n^2}{4n(3+n)}$$

$$\frac{4n^2 + 12n + 4n - 3n - n^2}{4n(3+n)} \leq 0$$

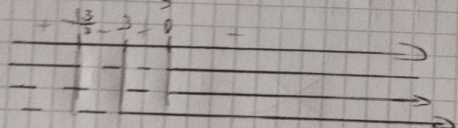
$$\frac{3n^2 + 13n}{4n(3+n)} \leq 0$$

$$3n^2 + 13n \geq 0$$

$$n(3n+13) \geq 0$$

$$n \geq 0 \quad n \geq -\frac{13}{3}$$

$$n \leq -\frac{13}{3} \vee n \geq 0$$



$$\begin{array}{l} 0 > 0 \quad 4n > 0 \quad n > 0 \\ 3n > 0 \quad n > -3 \end{array}$$

Non

$$2x^3 + 15x^2 + 20x$$

ES 679
 $n \times = n'$ di ore $\in \mathbb{R}^+$

$$\frac{2n+4+h+2+2n}{2h(h+2)} \geq \frac{2n^2+4n}{2h(n+2)}$$

$$\frac{-2n^2 + n + 6}{2n^2 + 4n} \geq 0$$

$$PA_{K/2} = \frac{1 \pm \sqrt{1+48}}{4}$$

$$-\frac{3}{2} \leq 2$$

or $n(n+2) \geq 0$
 $n \geq 0 \quad n \geq -2$

$- \quad - \frac{7}{2} \quad - \quad 0 \quad + \quad 2 \quad -$

~~$$S: - 2 \leq n \leq 3 \quad \vee \quad 0 \leq n \leq 2$$~~

$$n = x \in \mathbb{R}$$

$$2\left(\frac{x^2}{x+1}\right) \leq \frac{1}{2(x+1)}$$

$$\frac{2x^2}{2(x+1)2(x+1)}$$

$$\frac{2x^2 - x - 1}{2(x+1)} < 0$$

$$x(1,2) = \frac{1 + \sqrt{1+8}}{4} = \frac{1 + 3}{4} = 1 \quad x\left(\frac{-2}{4}, \sqrt{x}\right)$$

2x270

$$x^2 - 1 = (x-1)(x+1) \Rightarrow x^2 - 1 = (x-1)(x+1)$$

$$S:]-\infty, -1[V) \cup]\frac{1}{2}, 1[$$