15/3/2021

DISER. 2° GRADO GN
$$\Delta < 0$$
 $\alpha \times^2 + b \times + c \stackrel{?}{>} 0$
 $\alpha > 0$
 $\Delta < 0$

DISER. 2° GRADO GN $\Delta < 0$
 $\alpha > 0$
 $\Delta < 0$

OSSERVAZIONE

Brends un polinomis $a \times^2 + b \times + c$ con $a > 0$, $\Delta < 0$
 $a \times^2 + b \times + c = a \left(\times^2 + \frac{b}{a} \times + \frac{c}{a} \right) =$
 $= a \left(\times^2 + \frac{b}{a} \times + \frac{b^2}{4a^2} - \frac{b^2}{4a^2} + \frac{c}{a} \right) =$
 $= a \left(\times + \frac{b}{2a} \right)^2 - \left(\frac{b^a}{4a^2} - \frac{c}{a} \right) = a \left(\times + \frac{b^a}{2a} \right)^2 - a \left(\frac{b^a}{4a^2} - \frac{c}{a} \right) =$
 $= a \left(\times + \frac{b}{2a} \right)^2 + \frac{b^a}{4a^2} + \frac{c}{a} =$
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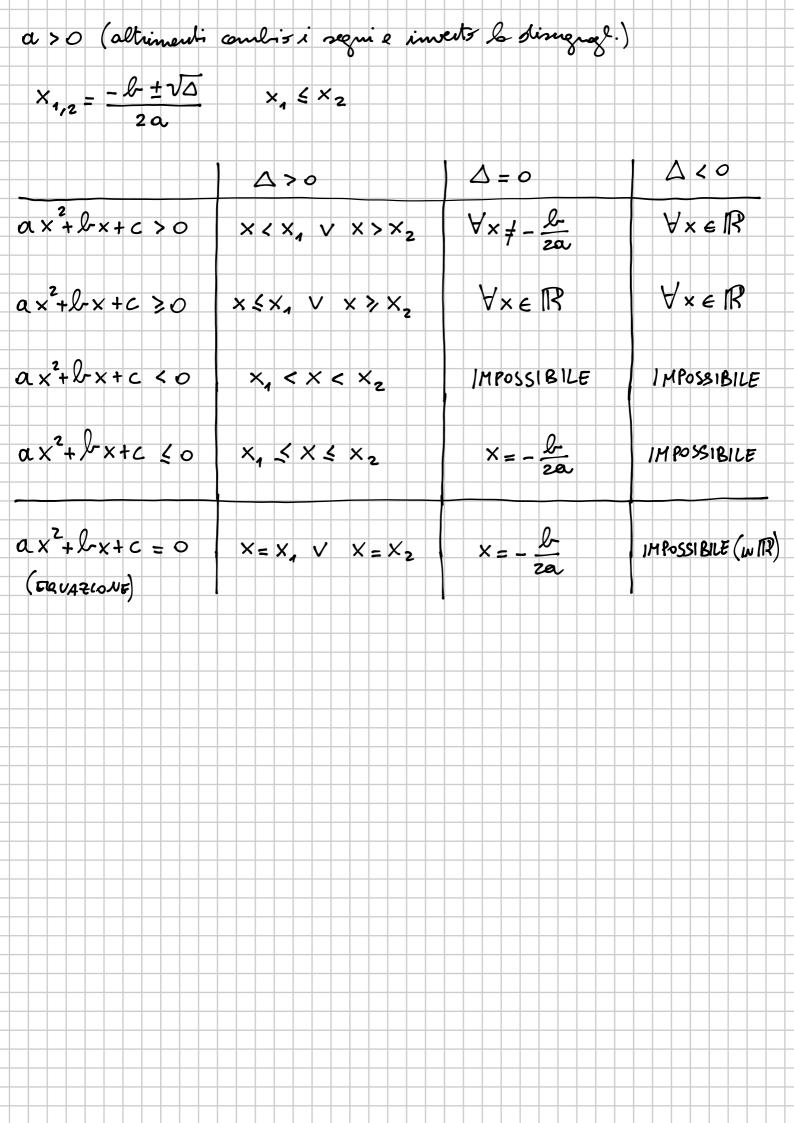
aundi, re a >0 e Δ 0, n ho che $a \times + b \times + c > 0 \ \forall x \in \mathbb{R}$

166
$$x^2 - x + 1 > 0$$

$$\Delta = (-1)^2 - 4 \cdot 1 \cdot 1 =$$

163
$$3x^2 - 6x + 7 \ge 0$$

$$\Delta = (-6)^2 - 4.3.7 =$$



168
$$-x^2 + 2x - 5 \le 0$$

CAMBJO 1 SEGUI E INVECTO CA DISUGUAGLIANZA

$$x^2 - 2x + 5 \ge 0 \qquad \Delta = (-2)^2 - 4 \cdot 5 = 4 - 20 = -1640$$

$$\forall x \in \mathbb{R}$$
283 $x(x^2 + 3x - 4) > 0$

$$(-4 < x < 0 \lor x > 1)$$

$$x > 0$$

$$x > 0$$