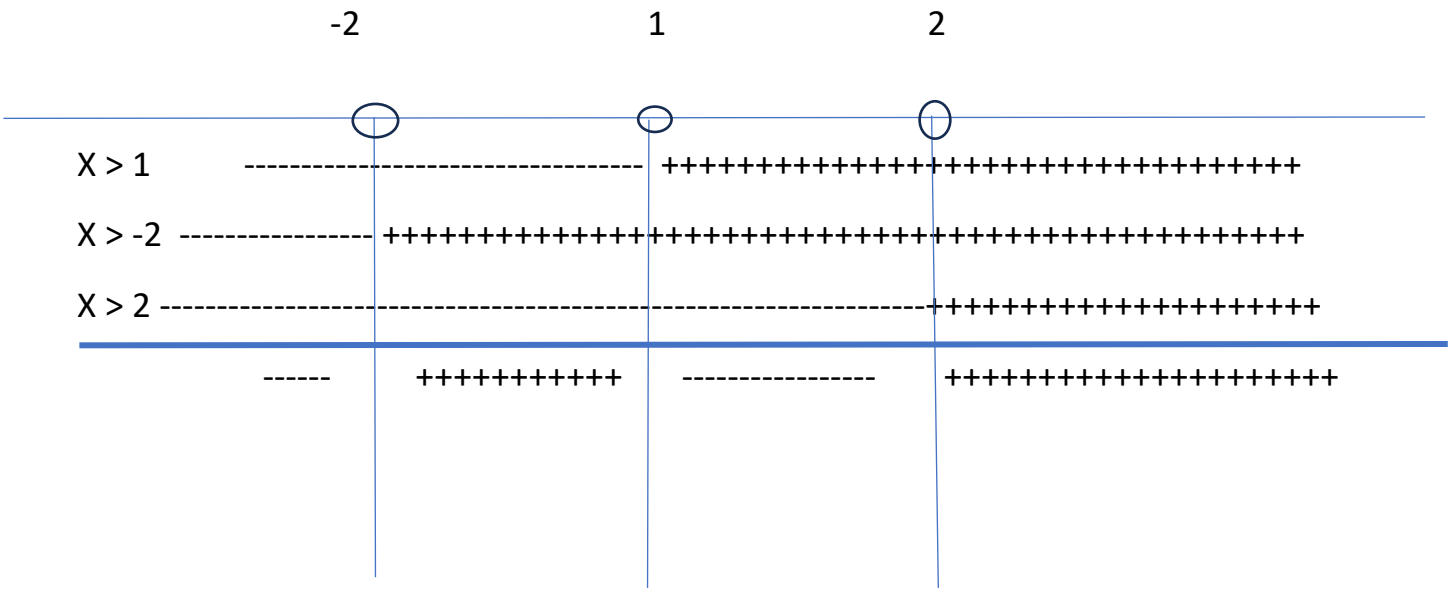
$(x - 1)(x^2 - 4) > 0$ se c'è maggiore > prendo le soluzioni con +

$X^2 - 4 = (x - 2)(x + 2)$

$X - 1 > 0 \Rightarrow x > 1$

$X - 2 > 0 = x > 2$

$X + 2 > 0 \Rightarrow x > -2$



$S = -2 < x < 1 \quad V \quad x > 2$

Es. 271

$x(x^2 + x) > 0$

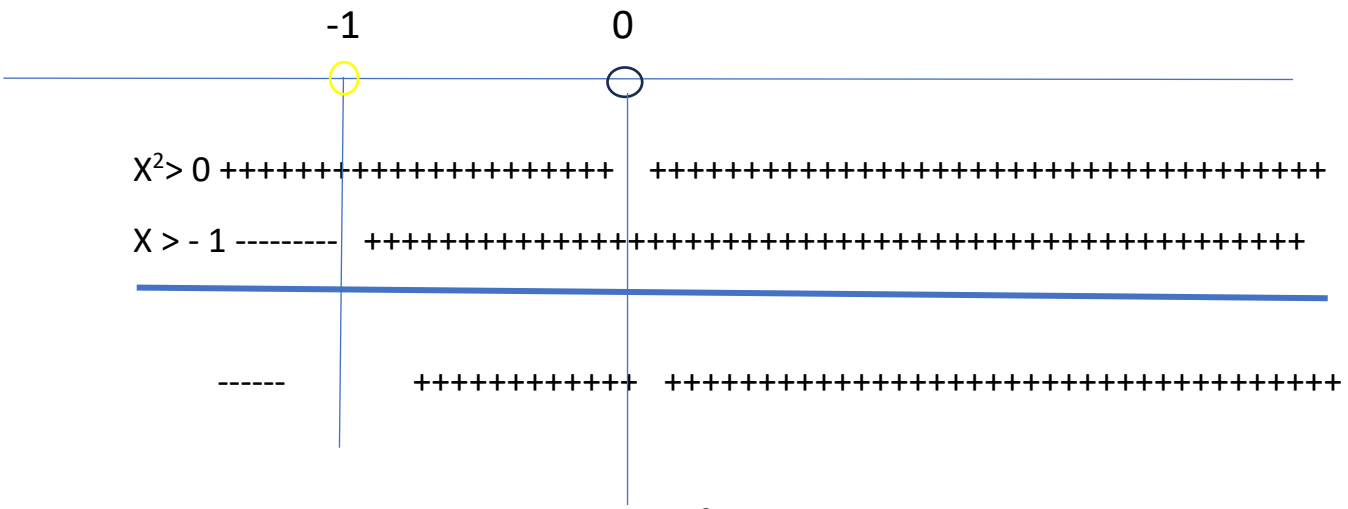
$x^2 - x \Rightarrow x(x + 1)$

$x(x)(x + 1) > 0$

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

$x^2 > 0$

$x + 1 > 0 \Rightarrow x > -1$



$s = x > -1 \vee x \neq 0$ (quando ho x^2 basta che tolgo lo 0 se è maggiore)

Es. 273

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

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

$9 - 4(-4) = 9 + 16 = 25$

$$X_{1,2} = \frac{-3 \pm \sqrt{25}}{2} =$$

$$X_1 = \frac{-3 + 5}{2} = 1$$

$X_2 = -4$

$(x - x1)(x - x2)$ $(x - 1)(x + 4) = x^2 - x + 4x - 4 = x^2 + 3x - 4$

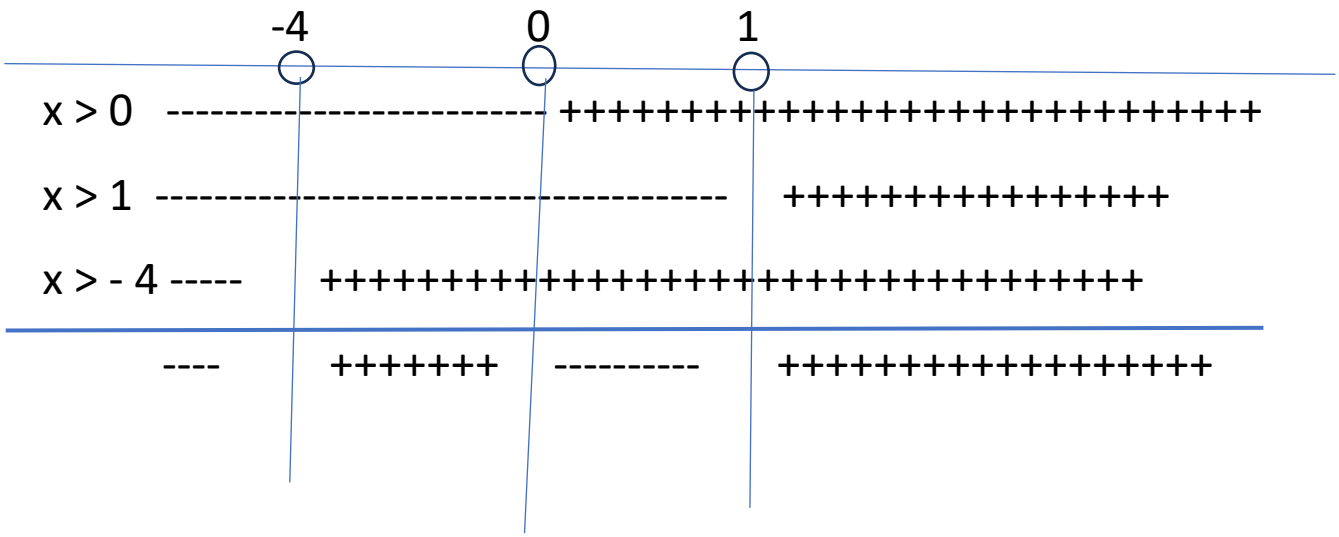
$X(x^2 + 3x - 4) > 0$

$X(x - 1)(x + 4) > 0$

$X > 0$

$X - 1 > 0 \Rightarrow x > 1$

$X + 4 > 0 \Rightarrow x > -4$



$S = -4 < x < 0 \vee x > 1$

Es. 188

$-x^2 + 3x \geq 0$

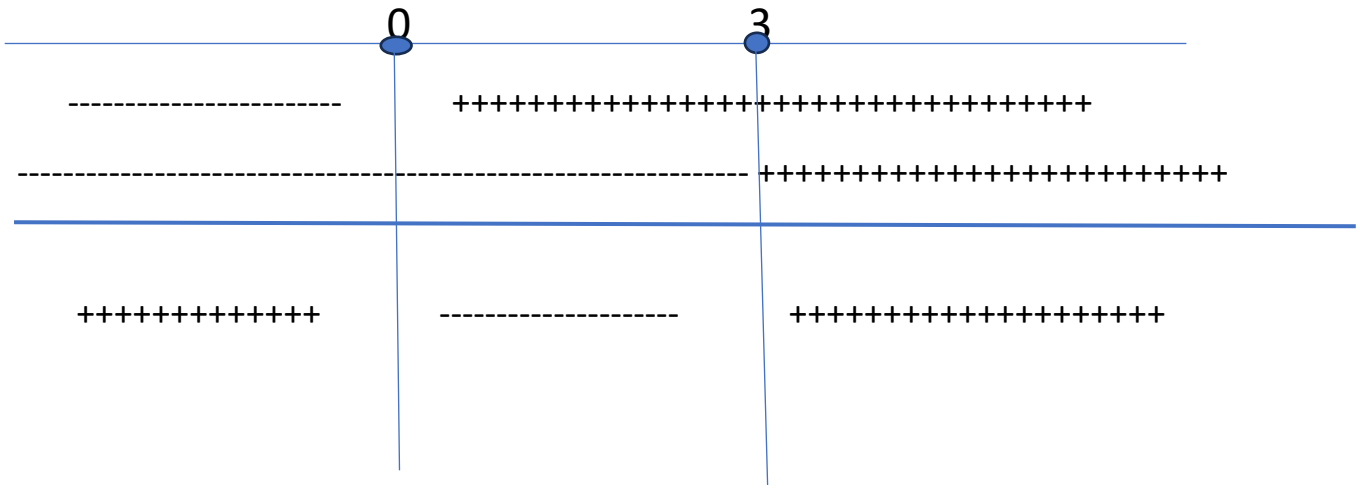
Quando c'è il meno davanti alla x alla seconda?

$X^2 - 3x \leq 0$

$X(x - 3) \leq 0$

$X \geq 0$

$X - 3 \geq 0 \Rightarrow x \geq 3$



S = 0 ≤ x ≤ 3

Es. 190

$X^2 + 3x + 5 \geq 0$

9 -4 (5) = -11 (se il delta è negativo è sempre risolta quindi per ogni x appartenente a R)

Es. 193

$X^2 -6x + 9 \leq 0$

36 – 4 (9) = 0

X = 6/2 = 3

S = x = 3

$$\frac{1 \quad > \quad 0}{X - 3}$$

C.E. $x - 3 = 0 \quad x \neq 3$

3

1 ++

X > 3 ---------- ++++++++++++++++++++++++++++++++

--------- ++++++

S = x > 3

Es. 282

$$\frac{X \quad < 0}{X - 2}$$

C. E. $X - 2 = 0 = x \neq 2$

X > 0

X – 2 > 0 => x > 2

0 2

---------- +++++++++++++++++++++++++++++++

---------- ++++++++++++++++++++

++++++++++++ ---------- +++++++++++++++

S = 0 < x < 2

Es. 289

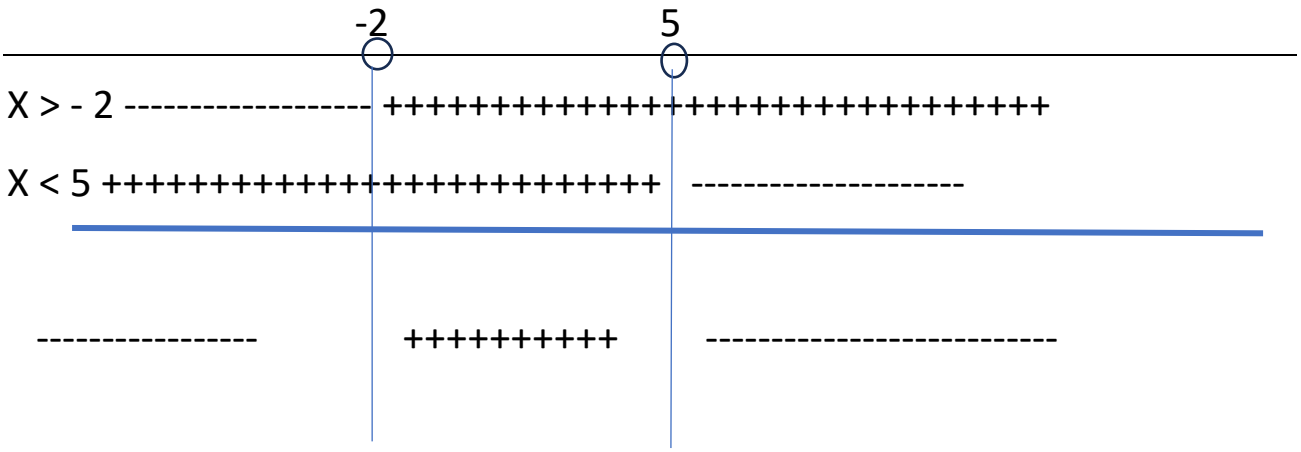
$$\frac{5x + 10 < 0}{20 - 4x}$$

$$\frac{5(x + 2) < 0}{4(5 - x)}$$

C.E. 5 – x = 0 -x = -5 => x ≠ 5

X + 2 > 0 => x > - 2

5 – x > 0 => -x > - 5 => x < 5



Es. 291

$$\frac{2x - 2 - 3x - 3}{X - 5} \geq 0$$

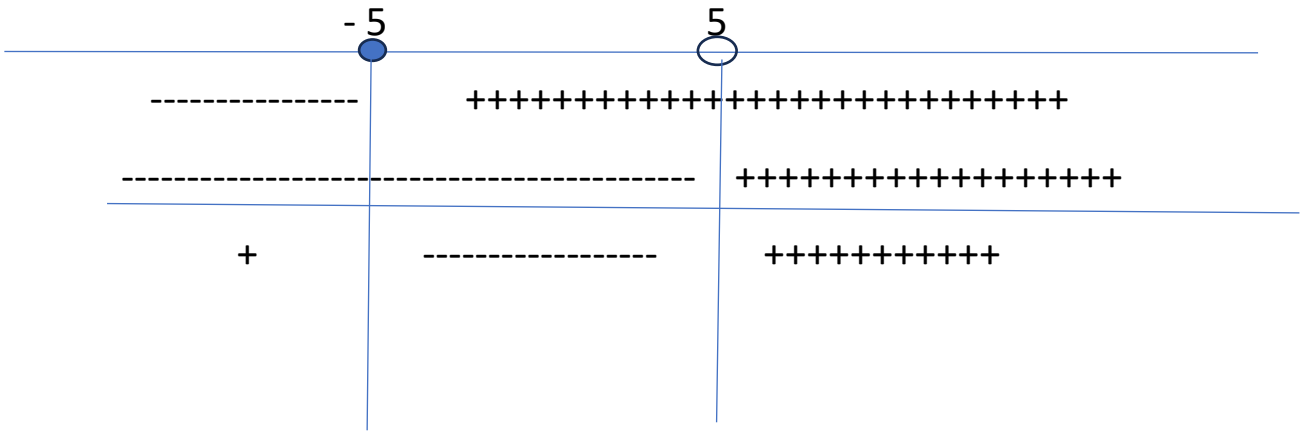
$$\frac{-x - 5}{X - 5} \geq 0$$

$$\frac{X + 5}{X - 5} \leq 0$$

$X - 5$

$X + 5 > 0 \Rightarrow x \geq -5$

$X - 5 > 0$



$3/4x^2 - 1/2x - 2 < 0$

$(-1/2)^2 - 4(3/4)(-2) =$

$$\frac{1 \quad - 4 \quad 3 \quad - 2 = 1 \quad - (3)(-2) = 1 \quad + 6 = 25}{4 \qquad 4 \qquad 4 \qquad 4 \qquad 4}$$

$$\frac{X1,2 = ½ \pm 25/4 =}{3/2}$$

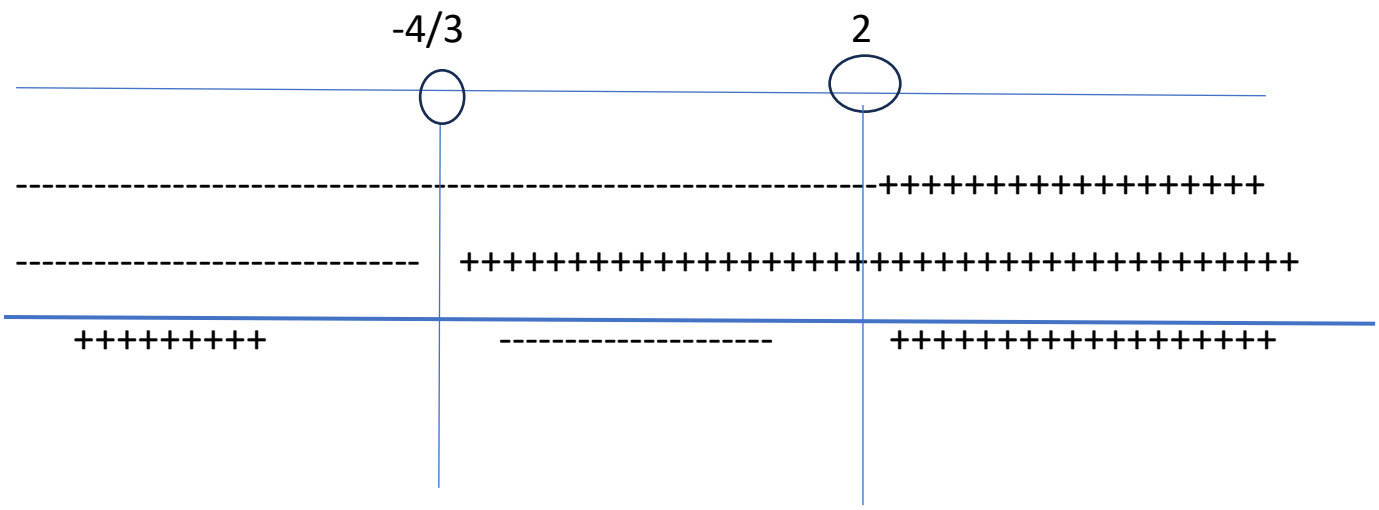
$$\frac{X1 = ½ + 5/2 = 3 = 3 \times 2 = 2}{3/2 \qquad 3/2 \qquad 3}$$

$$\frac{X2 = ½ - 5/2 = -2 = -2 \times 2 = - 4/3}{3/2 \qquad 3/2 \qquad 3}$$

$(x - 2)(x + 4/3) < 0$

$X - 2 > 0 \Rightarrow x > 2$

$X + 4/3 > 0 \Rightarrow x > - 4/3$



$S = -4/3 < x < 2$