

1 1) $2x - 3 = 0$ ssi $2x = 3$ ssi $x = \frac{3}{2}$

la solution de l'équation est $\frac{3}{2}$

2) $2x + 3 = -7$ ssi $2x = -10$ ssi $x = -5$

la solution de l'équation est -5

3) $8x + 7 = 10x - 2$ ssi $7 + 2 = 10x - 8x$ ssi $2x = 9$

ssi $x = \frac{9}{2}$. la solution est $\frac{9}{2}$

2 1) $(2x + 7)(5x + 4) = 0$ ssi $2x + 7 = 0$ ou $5x + 4 = 0$

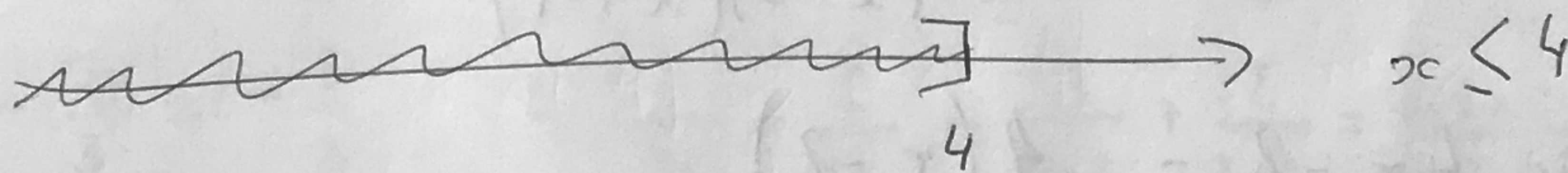
ssi $x = -\frac{7}{2}$ ou $x = -\frac{4}{5}$. l'ensemble S des solutions

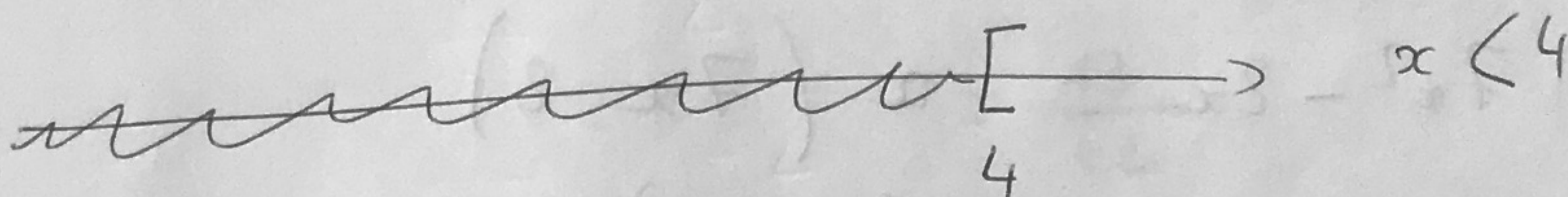
est $S = \left\{ -\frac{7}{2}; -\frac{4}{5} \right\}$

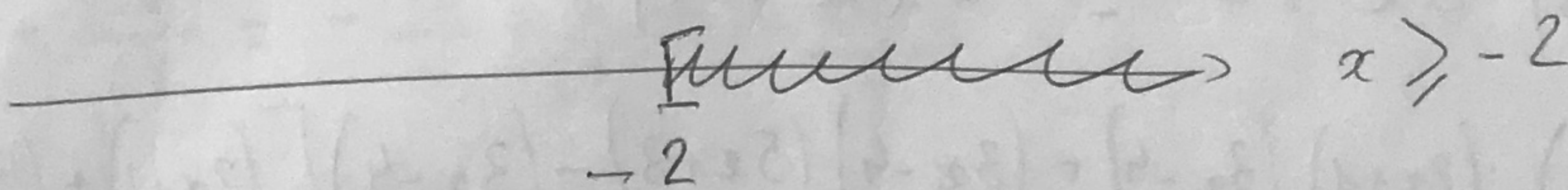
2) $(3 - 2x)(-3x - 7) = 0$ ssi $3 = 2x$ ou $3x = -7$

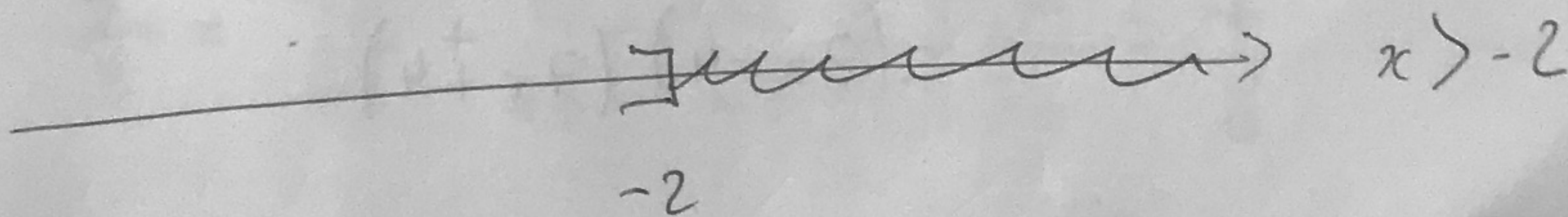
ssi $x = \frac{3}{2}$ ou $x = -\frac{7}{3}$ donc $S = \left\{ -\frac{7}{3}; \frac{3}{2} \right\}$

3

 $x \leq 4$

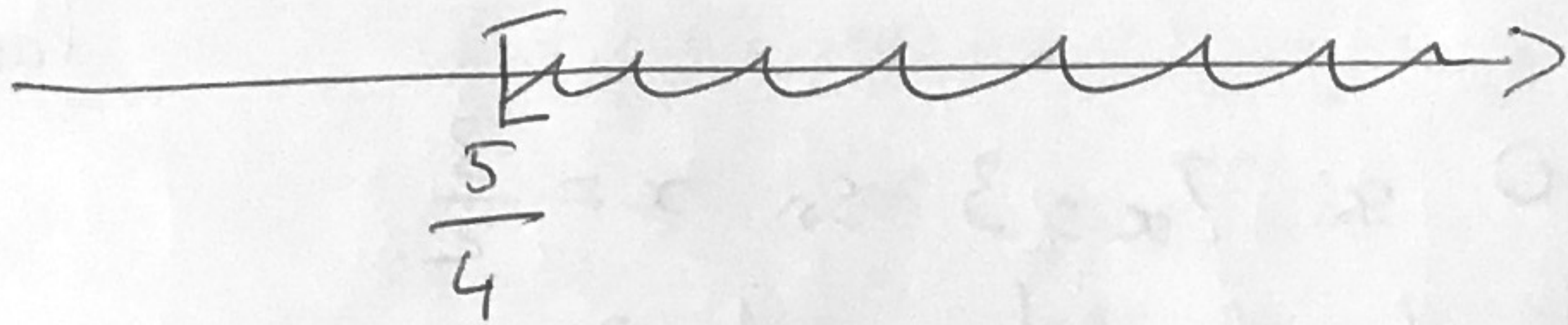
 $x < 4$

 $x \geq -2$

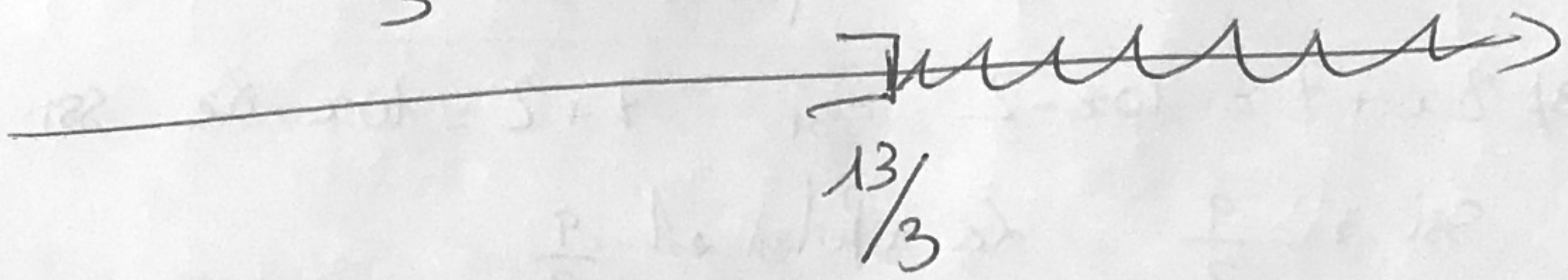
 $x > -2$

4) $4x - 5 \geq 0$ ssi $4x \geq 5$ ssi $x \geq \frac{5}{4}$ Analyse 4

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2) $2x + 9 < 5x - 4$ ssi $9 + 4 < 5x - 2x$ ssi $3x > 13$
ssi $x > \frac{13}{3}$



5) 1) $x^2 - 2x + 1 = (x - 1)^2$
 $a^2 + 2ab + b^2 = (a + b)^2$

2) $25x^2 + 60x + 36 = (5x + 6)^2$

3) $49x^2 - 64 = (7x)^2 - 8^2 = (7x - 8)(7x + 8)$
 $a^2 - b^2 = (a - b)(a + b)$

4) $(x - 2)^2 - 9 = (x - 2)^2 - 3^2 = (x - 2 - 3)(x - 2 + 3)$
 $= (x - 5)(x + 1)$

6) 1) $4x - 8 = 4(x - 2)$

2) $7x^2 - 2x = x(7x - 2)$

3) $3x + 3 = 3(x + 1)$

4) $(2x + 1)(3x - 4) + (3x - 4)(5x + 3) = (3x - 4)[(2x + 1) + (5x + 3)]$
 $= (3x - 4)(7x + 4)$