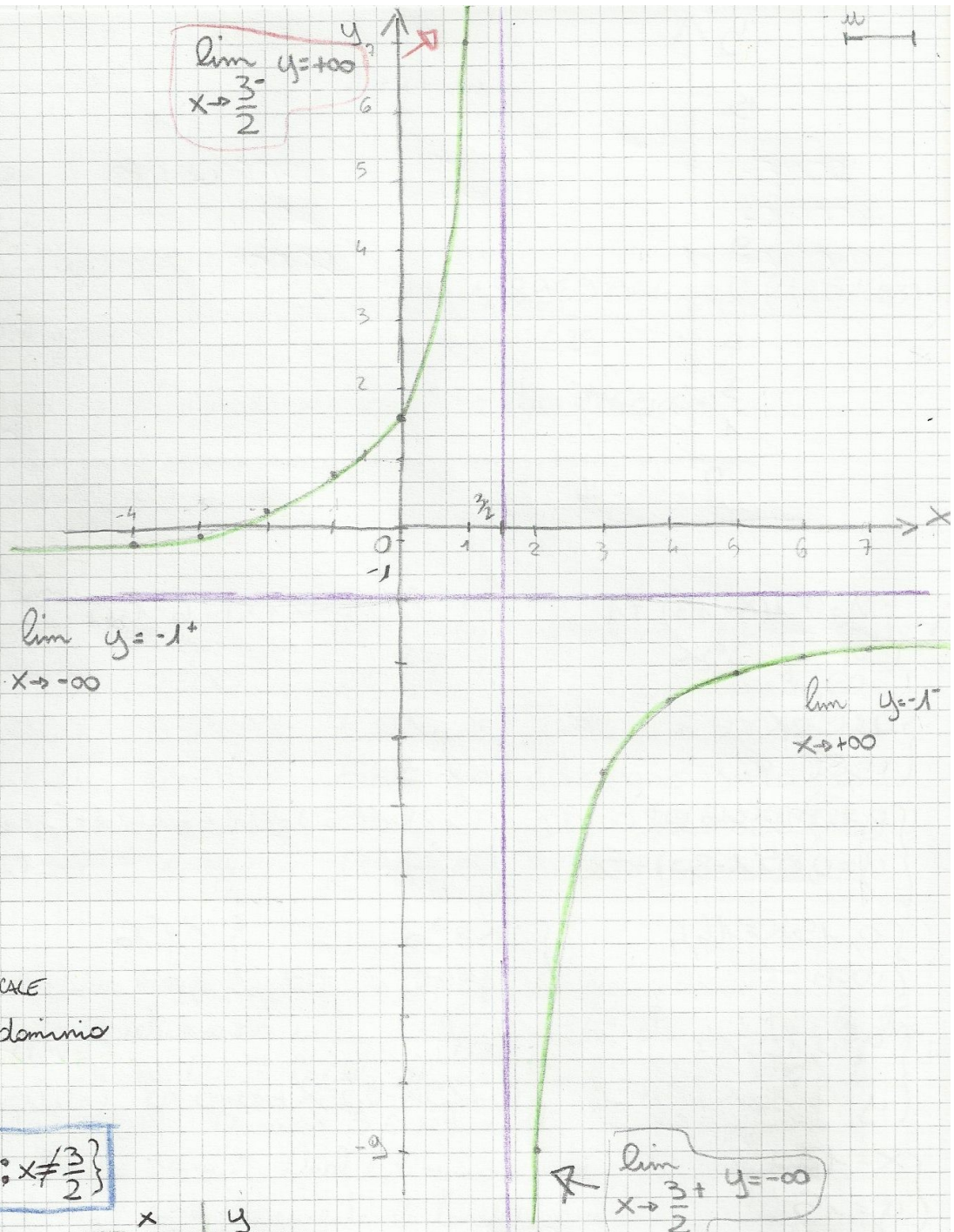


$$y = \frac{2x+5}{3-2x}$$

x	y
-4	-1/11
-3	-1/5
-2	-1/1
-1	-1/5
0	-1
1	-5/1
2	-9/1
3	11/1
4	15/1
5	19/1
6	23/1
7	27/1



$$\lim_{x \rightarrow \frac{3}{2}^-} y = +\infty$$

$$\lim_{x \rightarrow -\infty} y = -1^+$$

$$\lim_{x \rightarrow +\infty} y = -1^-$$

$$\lim_{x \rightarrow \frac{3}{2}^+} y = -\infty$$

$3 - 2x = 0$
 $x = \frac{3}{2} = 1,5$
 ASINTOTO VERTICALE
 escluso dal dominio

$$D = \{ \forall x \in \mathbb{R} : x \neq \frac{3}{2} \}$$

	x	y
$\lim_{x \rightarrow \frac{3}{2}^-} y = +\infty$	1,49	-339
	1,499	-3999
	$1,5^- \leftarrow 1,4999$	$39999 \rightarrow +\infty$

	x	y
$\lim_{x \rightarrow \frac{3}{2}^+} y = -\infty$	1,51	-401
	1,051	-4001
	$1,5^+ \leftarrow 1,0051$	$-40001 \rightarrow -\infty$

ASINTOTO ORIZZONTALE

Se numeratore e denominatore hanno lo stesso grado l'asintoto orizzontale si determina facendo il rapporto dei coefficienti del termine di grado massimo.

$$y = \frac{2}{-2} = -1$$

$\lim_{x \rightarrow -\infty} y = -1^+$	x	y
	-1000	-0,9996
	-10000	-0,99996
	-100000	-0,999996

$\lim_{x \rightarrow +\infty} y = -1^-$	x	y
	1000	-1,0004
	10000	-1,00004
	100000	-1,000004

$$y = \frac{4-3x}{x-2}$$

ASINTOTO VERTICALE

$$x=2$$

x	y	x	y
-4	$-\frac{8}{3}$	5	$-\frac{11}{3}$
-3	$-\frac{13}{5}$	6	$-\frac{7}{2}$
-1	$-\frac{7}{3}$	7	$-\frac{17}{5}$
0	-2		
1	-1		
2	∞		
3	-5		
4	-6		

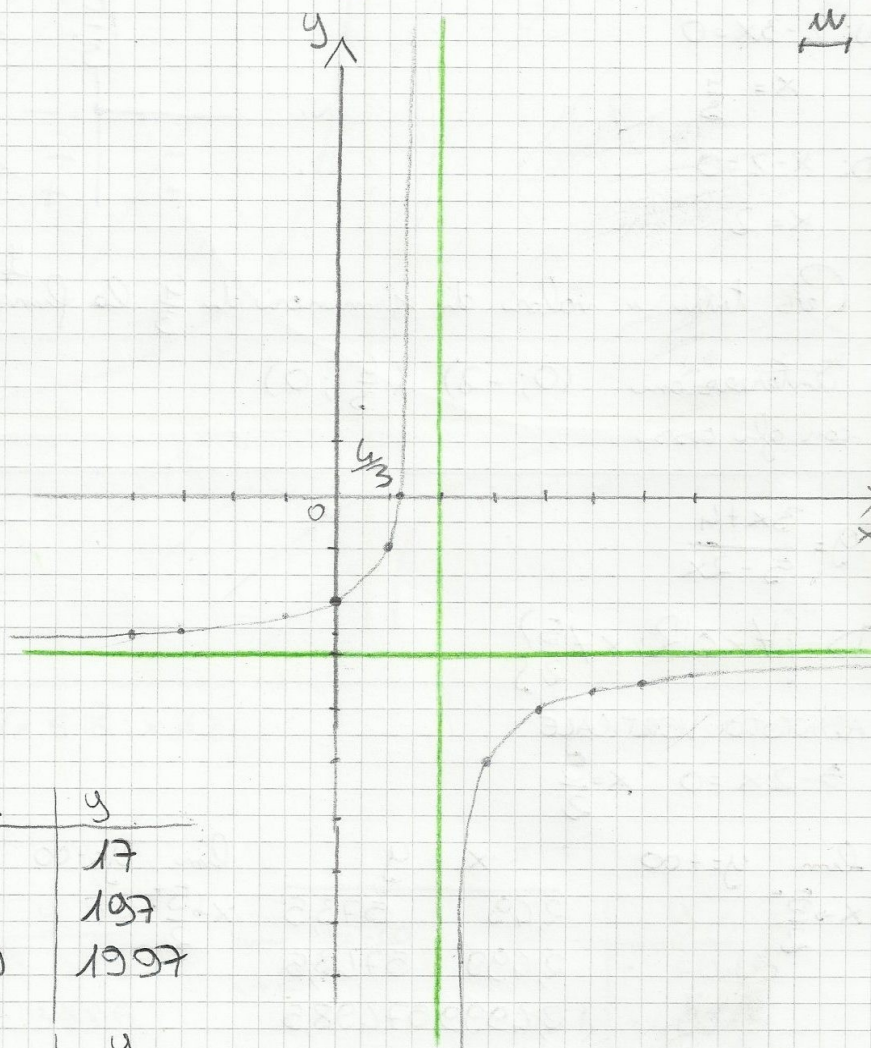
$$\lim_{x \rightarrow 2^-} y = +\infty$$

x	y
1,9	17
1,99	197
1,999	1997

$$\lim_{x \rightarrow 2^+} y = -\infty$$

x	y
2,01	-203
2,001	-2003
2,0001	-20003

$$D = \{ \forall x \in \mathbb{R} : x \neq 2 \}$$



ASINTOTO ORIZZONTALE

$$y = -3$$

$$\lim_{x \rightarrow -\infty} y = -3^+$$

x	y
-1000	-2,998
-10000	-2,9998
-100000	-2,99998

$$\lim_{x \rightarrow +\infty} y = -3^-$$

x	y
1000	-3,002
10000	-3,0002
100000	-3,00002

STUDIO del SEGNO

$$y \geq 0$$

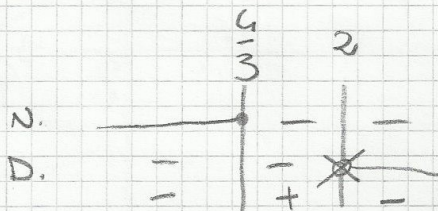
$$\frac{4-3x}{x-2} \geq 0$$

$$N: 4-3x=0$$

$$x = \frac{4}{3}$$

$$D: x-2=0$$

$$x = 2$$



Per tutti i valori di x minori di $\frac{4}{3}$ la funzione è negativa

Intersezioni $(0; -2)$ $(\frac{4}{3}; 0)$
con gli assi

$$y = \frac{3x+4}{5-2x}$$

$$D = \left\{ \forall x \in \mathbb{R} : x \neq \frac{5}{2} \right\}$$

ASINTOTO VERTICALE

$$5-2x=0 \quad x = \frac{5}{2}$$

$$\lim_{x \rightarrow \frac{5}{2}^-} y = +\infty$$

x	y
2,49	573,5
2,499	5748,5
2,4999	57498,5

$$\lim_{x \rightarrow \frac{5}{2}^+} y = -\infty$$

x	y
2,501	-5751,5
2,5001	-57501,5
2,50001	-575001,5

ASINTOTO ORIZZONTALE

$$y = -\frac{3}{2}$$

$$\lim_{x \rightarrow -\infty} y = -\frac{3}{2}^+$$

x	y
-1000	-1,496
-10000	-1,4996
-100000	-1,49996

$$\lim_{x \rightarrow +\infty} y = -\frac{3}{2}^-$$

x	y
1000	-1,505
10000	-1,5005
100000	-1,50005

STUDIO del SEGNO

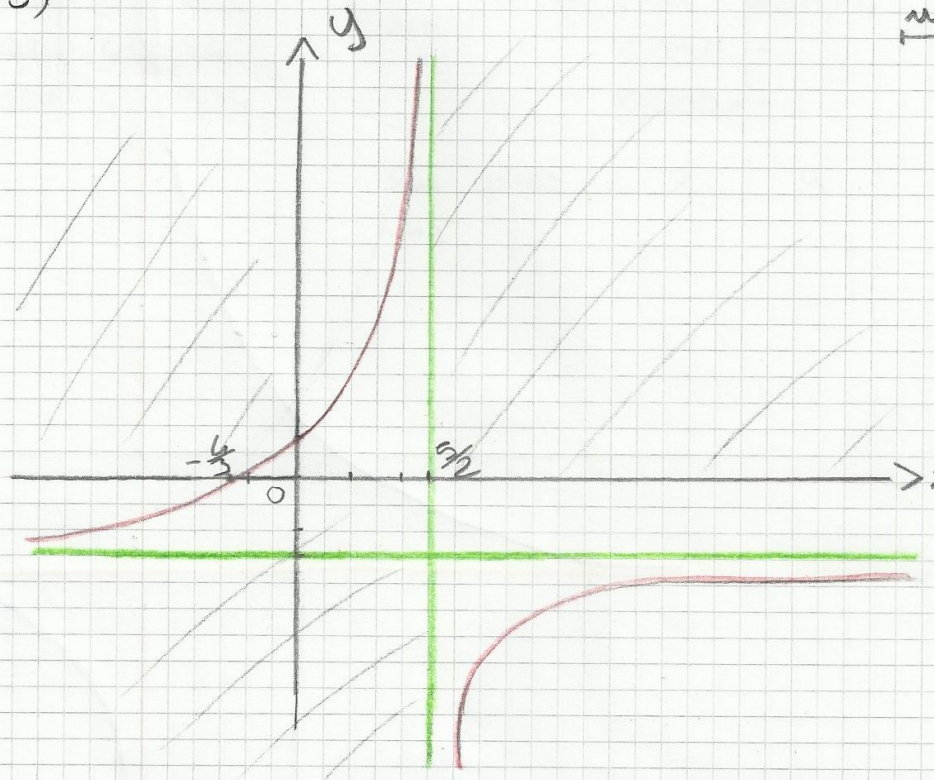
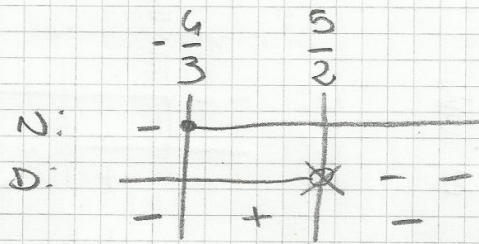
$$y \geq 0$$

$$\frac{3x+4}{5-2x} \geq 0$$

$$N: 3x+4=0 \quad x = -\frac{4}{3}$$

$$D: 5-2x=0 \quad x = \frac{5}{2}$$

$$(0; \frac{4}{5}) \quad (-\frac{4}{3}; 0)$$



$$y = \frac{3x+2}{4-2x}$$

$$D = \{ \forall x \in \mathbb{R} : x \neq 2 \}$$

ASINTOTO VERTICALE

$$x = 2$$

$$\lim_{x \rightarrow 2^-} y = +\infty$$

x	y
1,9	38,5
1,99	398,5
1,999	3998,5

$$\lim_{x \rightarrow 2^+} y = -\infty$$

x	y
2,01	-401,5
2,001	-4001,5
2,0001	-40001,5

ASINTOTO ORIZZONTALE

$$y = -\frac{3}{2}$$

$$\lim_{x \rightarrow -\infty} y = -\frac{3}{2}^+$$

x	y
1000	-1,504
10000	-1,5004
100000	-1,50004

$$\lim_{x \rightarrow +\infty} y = -\frac{3}{2}^-$$

x	y
-1000	-1,496
-10000	-1,4996
-100000	-1,49996