

CALCOLO DEI LIMITI

FUNZIONE • $y = f(x)$

$$y = x^2 - 10x + 5$$

$$\lim_{x \rightarrow 3^+} x^2 - 10x + 5 =$$

$$= 9 - 30 + 5 = -16$$

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

$$\lim_{x \rightarrow 1^+} \frac{x+1}{x-2} = \frac{1+1}{1-2} = -2$$

$\frac{3}{0}?$

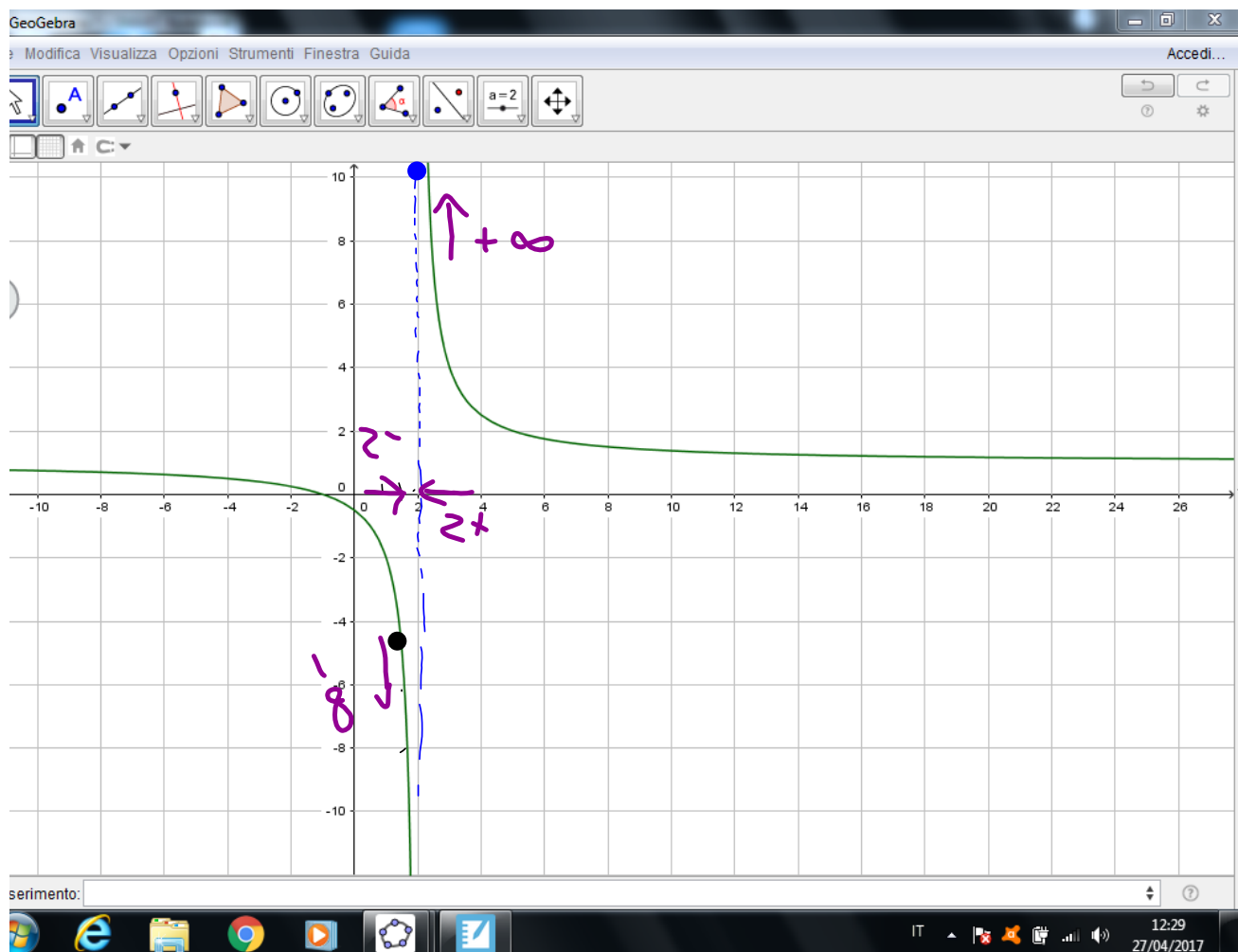
$$\lim_{x \rightarrow -1} \frac{x+1}{x-2} = \frac{0}{-3} = 0$$

$$\lim_{x \rightarrow 2^-} \frac{x+1}{x-2}$$

SOSTITUISCO VALORI
SEMPRE PIU' VICINI A
2 VENENDO DA VALORI
DA SINISTRA (2^-)

x	y
1	$\frac{1+1}{1-2} = -2$
1,5	$\frac{1,5+1}{1,5-2} = -5$
1,9	$\frac{1,9+1}{1,9-2} = -29$
1,99	$\frac{1,99+1}{1,99-2} = -299$
1,999999	$\frac{1,999999+1}{1,999999-2} = -2999999$
\downarrow	\downarrow
2^-	$-\infty$

$$\lim_{x \rightarrow 2^-} \frac{x+1}{x-2} = -\infty$$



$$y = \frac{x+1}{x-2} \quad \lim_{x \rightarrow 2^+} \frac{x+1}{x-2} = +\infty$$

x	y
2,1	$\frac{3,1}{0,1} = 31$
2,01	$\frac{3,01}{0,01} = 301$
2,0001	$\frac{3,0001}{0,0001} = 30001$
	$\frac{3,00001}{0,00001} = 300001$
↓	↓
2 ⁺	+∞