LDDR – Niveau 1 : TE 9 Analyse

ST1 – 2017.09.13 – 2MG03 Series B Name :

1) Give the domain of $f(x) = \frac{x+1}{x^2-16}$

and of $g(x) = \frac{1}{\sqrt{5-x}}$

2) Determine $\lim\limits_{x\to 2} \frac{x^2+3}{x-2} =$

$\lim\limits_{x\to+\infty} -5x^3 =$

$\lim\limits_{x\to-\infty} \frac{17x^2-1000}{-x^3+x+3} =$

$\lim\limits_{x\to+\infty} \frac{2x^2+8x}{5x^2+7} =$

3) Give a function, in the form of your choice, that has a vertical asymptote and a slant asymptote. What's the equation of the VA and of the SA ?

$f(x) =$

Equation of the VA :

Equation of the SA :

4) The function f has the domain $D = \mathbb{R}\backslash\{6\}$.

What equality with a limit makes you deduce that its graph has a hole at $(6; -8)$?

lim

What equality with a limit makes you deduce that its graph has a horizontal asymptote $y = 3$?

lim