ANALYSE : LES LIMITES

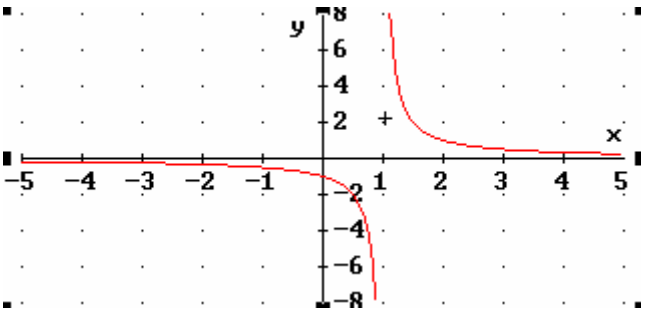
Recherche des limites d'après graphiques

solutions des exercices

1) $f(x)=\dfrac{1}{x-1}$ (rem : par fct de base) D = R \ {1}

$\lim\limits_{x\to\pm\infty} f(x)=0^{\pm}$

$\lim\limits_{x\to 1\pm} f(x)=\pm\infty$

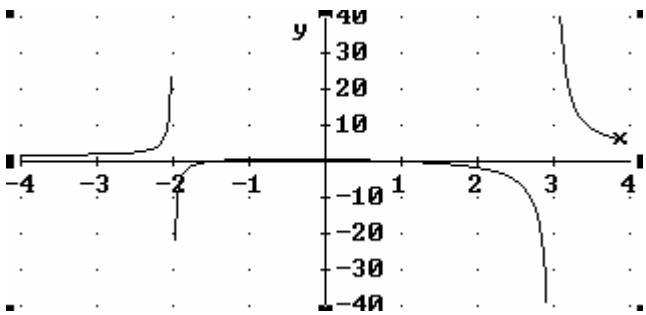


2) $f(x)=\dfrac{2x^2+x-3}{(x+2)(x-3)}$ D = R \ {-2,3}

$\lim\limits_{x\to\pm\infty} f(x)=?$

$\lim\limits_{x\to 3\pm} f(x)=\pm\infty$

$\lim\limits_{x\to -2\pm} f(x)=\mp\infty$



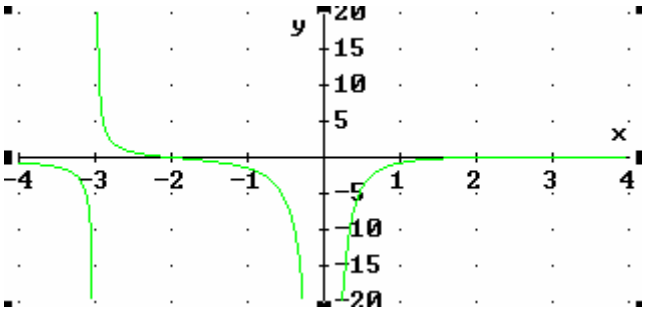
3) $f(x)=\dfrac{x^2-4}{x^3+3x^2}$

D = R \ {0,-3}

$\lim\limits_{x\to\pm\infty} f(x)=0^-$

$\lim\limits_{x\to 0\pm} f(x)=-\infty$

$\lim\limits_{x\to -3^{\pm}} f(x)=\pm\infty$



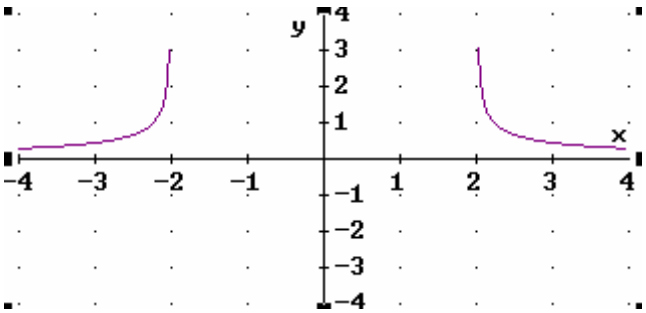
4) $f(x)=\dfrac{1}{\sqrt{x^2-4}}$ (rem : fct paire)

D=]-∞,-2[U]2,+∞[

$\lim\limits_{x\to\pm\infty} f(x)=0^+$

$\lim\limits_{x\to -2^-} f(x)=+\infty$

$\lim\limits_{x\to 2^+} f(x)=+\infty$



5) $f(x) = \dfrac{1}{2x^2 + x - 1}$

D = R \ {-1,1/2}

$\lim\limits_{x \to \pm\infty} f(x) = 0^+$

$\lim\limits_{x \to -1^{\pm}} f(x) = \mp\infty$

$\lim\limits_{x \to 1/2^{\pm}} f(x) = \pm\infty$