Let que of for the state of convergence.

A) Si so g(1) It converge alors

Cutere de companaison:

So f(1) It converge alors g(1) It converge.

So f(1) It converge alors g(1) It converge alors g(1) It converge (integrally of the grade of t

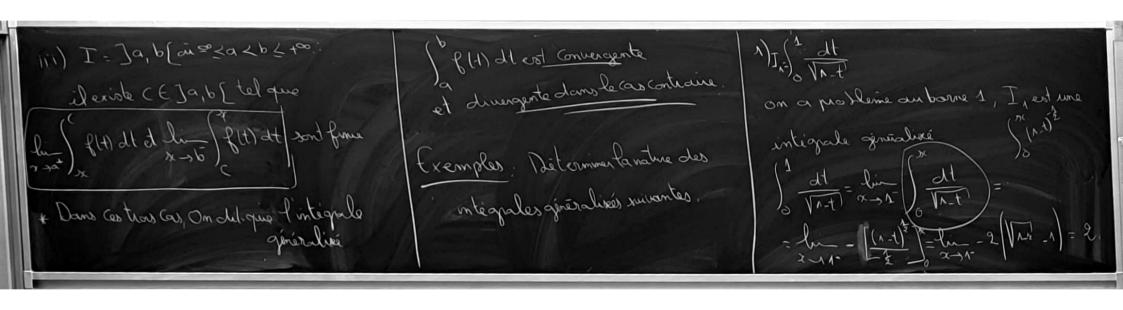
Exemples

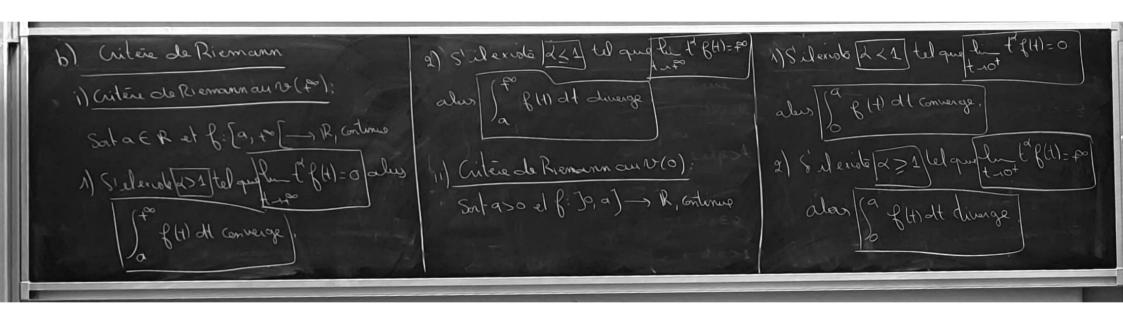
(a) Car ('est une integrale de Remann

(a) Car ('est une integrale de Berbrand

(a) Car ('est une integrale de Berb

2) $I_2 = \int_1^{\infty} e^{-t} dt = \lim_{x \to \infty} \int_1^{\infty} e^{-t} dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x \to \infty} \left(\frac{x}{2^{1/2}} \right) dt$ $I_3 = \lim_{x$





Exempole. Déterminer la nature

Le / Smill At Confusionéquele

Remonques

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N x a >0, et f. Jo, a J. > 12 centimo

Lel que l' fell de contenço

Lel que

Intégrale généralisée absolument (onvergente:

Proposition, Soit f: [a,b[-> R,

une fonction centinue

Mri / 16(0)/ doc est (onvergente alors)

Sof(x) de est convergente. Et, en plus

| b f(a) dx | < b f(x) dx.

2) Sort g [a, b] > Rt (online tel quo

Voc E [a, b[| | f(x)| < g(x)).

Alors, Si f g (x) dx Converge also) | f(i) dx.

Remarque

Si 5 b | f(x) | dx (onverye alas on dit

Si f x x dox est absolument convergente

Exemple: Determiner la nature

10 m (x) dx

(i) on del que f et g sont équivalentes

au v (70) Shi lu f(x) = 1 (6 no le

et peritue un [01, b[talk que

II f g i) det diverge [1] bg (1) det diverge

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Even yob. Détermier la nature $\frac{1 - \cos(t)}{1 - \cos(t)} = \frac{1}{2} + \frac{1}{2}$