$\exists x\,(x \neq 1)$

$\exists x\,(x^2 < x)$

Ιαν 10-11:18 πμ

$\Xi(x)$, $I(x)$, $\Delta(x)$

① $\forall x\,(\Xi(x) \to I(x))$

② $\exists x\,(\Delta(x) \wedge \neg I(x))$

③ $\exists x\,(\Delta(x) \wedge \neg \Xi(x))$

② $\Rightarrow$ έστω x_0 για το οποίο $\Delta(x_0)$ ④, $\neg I(x_0)$ ⑤

① $\Rightarrow$ $\Xi(x_0) \to I(x_0)$

$\Downarrow$

$\neg I(x_0) \to \neg \Xi(x_0)$ ⑤

MP $\neg \Xi(x_0)$ ⑥

(3,5,6) $\Rightarrow$ $\Delta(x_0) \wedge \neg \Xi(x_0)$

$\Downarrow$

$\exists x\,(\Delta(x) \wedge \neg \Xi(x))$

Ιαν 10-11:42 πμ

Ιαν 10-12:35 μμ

$M(x)$, $\Lambda(x)$, $K(x)$, $\Pi(x)$

① $\forall x\,(M(x) \to \neg \Lambda(x))$

② $\forall x\,(K(x) \to \neg \Pi(x))$

③ $\forall x\,(\neg \Lambda(x) \to \Pi(x))$

④ $\forall x\,(M(x) \to \neg K(x))$

έστω τυχαίο x. ① $M(x) \to \neg \Lambda(x)$ ⑤

③ $\neg \Lambda(x) \to \Pi(x)$ ⑥

(5,6) $\Rightarrow$ $M(x) \to \Pi(x)$ ⑦

② $\Rightarrow$ $\Pi(x) \to \neg K(x)$ ⑧

(7,8) $\Rightarrow$ $M(x) \to \neg K(x)$

$\Downarrow$

$\forall x\,(M(x) \to \neg K(x))$

Ιαν 10-11:48 πμ

$K(x,y)$: ο x συμπ. από τον y

$\exists x\,\exists y\,\left(K(x,y) \wedge \left(\forall z\,((z \neq y) \to \neg K(y,z))\right)\right)$

$\exists x\,\exists y\,\left(K(x,y) \wedge \forall z\,\left((z \neq y) \wedge (z \neq x) \to \neg K(y,z)\right)\right)$

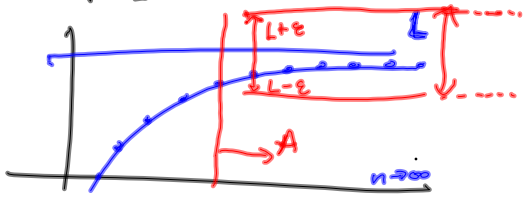
$A(x,y)$ ο x λιγότερο αγαπάει y

$\exists x\,\forall y\,A(x,y)$

Ιαν 10-12:35 μμ

$\forall \varepsilon > 0\ \exists A\ \forall n > A\ |a_n - L| < \varepsilon$

$\forall \varepsilon\ \exists A\ \forall n\ (n > A) \to |a_n - L| < \varepsilon$



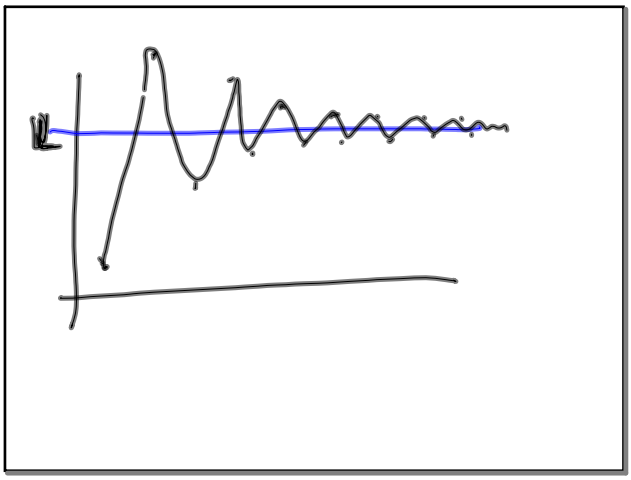
Άρνηση: $\exists \varepsilon > 0\ \forall A\ \exists n > A\ |a_n - L| \geq \varepsilon$

$\exists \varepsilon\ \forall A\ \exists n\ (n > A) \wedge (|a_n - L| \geq \varepsilon)$

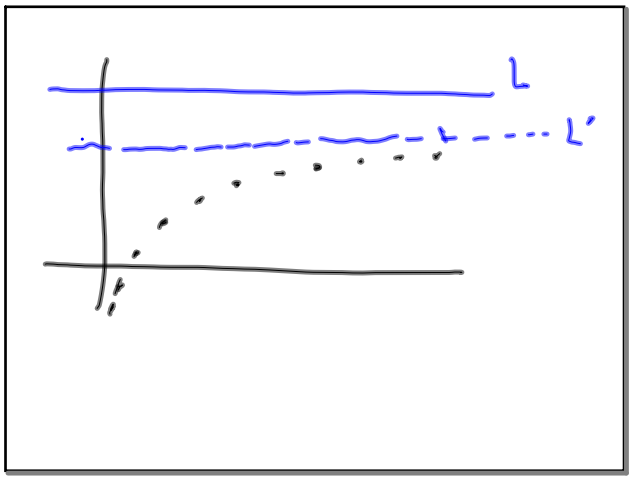
$p \to q \equiv \neg p \vee q$

$(p \wedge \neg q)$

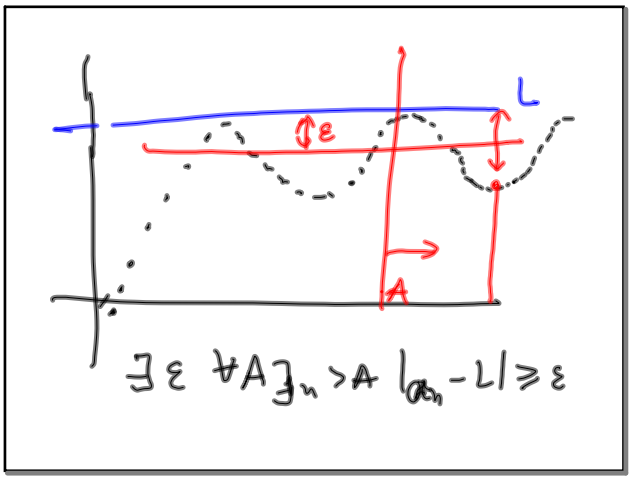
Ιαν 10-12:47 μμ



Ιαν 10-12:54 μμ



Ιαν 10-12:58 μμ



Ιαν 10-12:59 μμ

$$p \longleftrightarrow q \equiv (p \to q) \wedge (q \to p)$$

Ιαν 10-1:05 μμ