another sample: l'all prime neulos are odd" 7 wet all know his is falle eg. 2 is not oold Lets tease apart he logie, or in shatar where we do not know he answer. Let P(G): "x is prime" (Mean that & is prime) Q(x): x is odd (mean next x is odd) Do the sontence can be reantler symbolically Vilpo = Qx) "For all of x, y x is prime, hen x is odd" IP I negate he: $7/\sqrt{\chi[P(x) = 0x]} \Leftrightarrow \exists x[Rx) \neq 0x]$ M (Ax (Ax) 1902)

In words: 1.e Rose is a prime that is not add. Do in order to prove this is falls; (organal stokmax) "Al prime numbers are add" that is to prove he negation is true $(7 \forall x \Gamma P(x) \Rightarrow 0x$ The logie Seys: & " Find a prime thatis not odd" a me But we cont, 2 is journe tout and a easy to prive, we just palled 2 out of he hat. therefore the negation is the mont is false

Lets modefy il: "all prime newlers begger than 2 are odd" $(\forall x 72) [f(x) \Rightarrow 0(x)]$ "Fort all x 72, If $x = a_p = b_p$, then x = codd''What who nogation of his statement? (3x72) (AOn - Oa) ". here goist nuser 52, which is prime and not odd" sulf agreement bases seems proved the lattice Linkshirt of the sect standard 2-tons of continues and a special section of the control of the contr

The Bart Alleman Prince of the state of the control of the state of th

dita statificamentacet gandines, a filosopedante en como districo compunicación. L'estrem manuello estructura tesperante de la compunicación de districto districto de la compunicación del compunicación de la compunicación de la compunicación de la compunicación del compunicación de la compunicación del compunicación de la compunicación del compunicación de la compunicación de la compunicación del compunicación del compunicación de la compunicación de la compunicación del compunic

hetx denote a person P(x): "x plays for sport team T 11 (denote) H(x): "x5 heathy" $\exists x [P(x) \land \neg (Hx)]$ Manez i evezdaz sentene That is inhealty" (the is an unhoutty player on Team T) Lets negate ct. -When we negate a 7, it VX JEPXA THE Ve Eprox VH(2) (the way I mares inside. todo it 1) become V 7 foils away, Baacktonja

But hat loss familiar: P = 9 g p and travely Maas Seure as: y may have he saure VX[nPa)vH(a) in English

another: $\forall x \ \angle \chi_{70} \Rightarrow \exists y (xy=1)$ "forall x) PX70, men there say, such that xy=1" in the of (quantifies) only tells you savething in the woralde derde associated with ay quartful we a do main of quantification, Which tells as what the x dente? Je he domani of grahefrender is obstines (?)

- By we have set it and in advance
or cartest notes it clear wheat

it is,

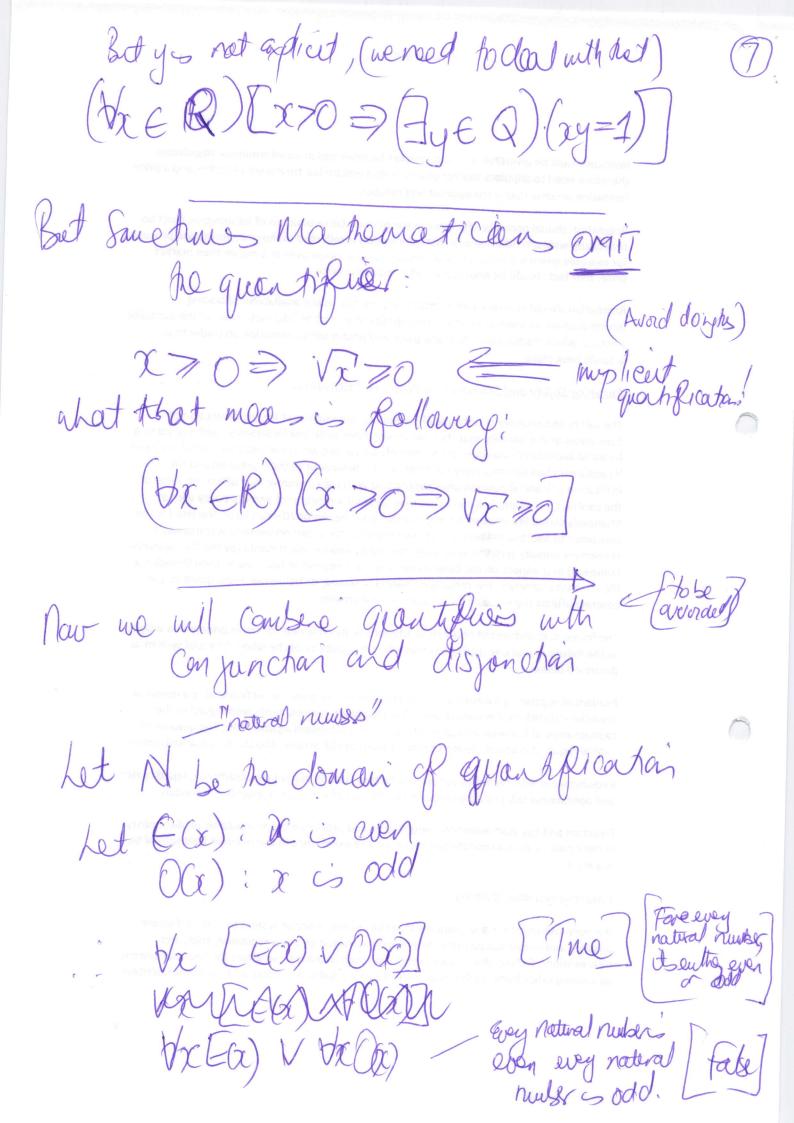
- Then we can make stockment (makes)

- Otherwse we need to state the

domani of grahefrender;

(ratherhouses) (VXER)[x70.⇒]g(xy=1)]

∴ I now have true stelland
that is un ambiguese.



> pure sx, which (8): $= \lim_{x \to \infty} \left[\frac{1}{E(x)} \wedge O(x) \right]$ In E(x) / Ha) (la) -> Roe sax horteren of and her san x hortered I How hois go body way for Reth Fredty
when wany it with grantfles
(The Come F) Quez (Disjunction)

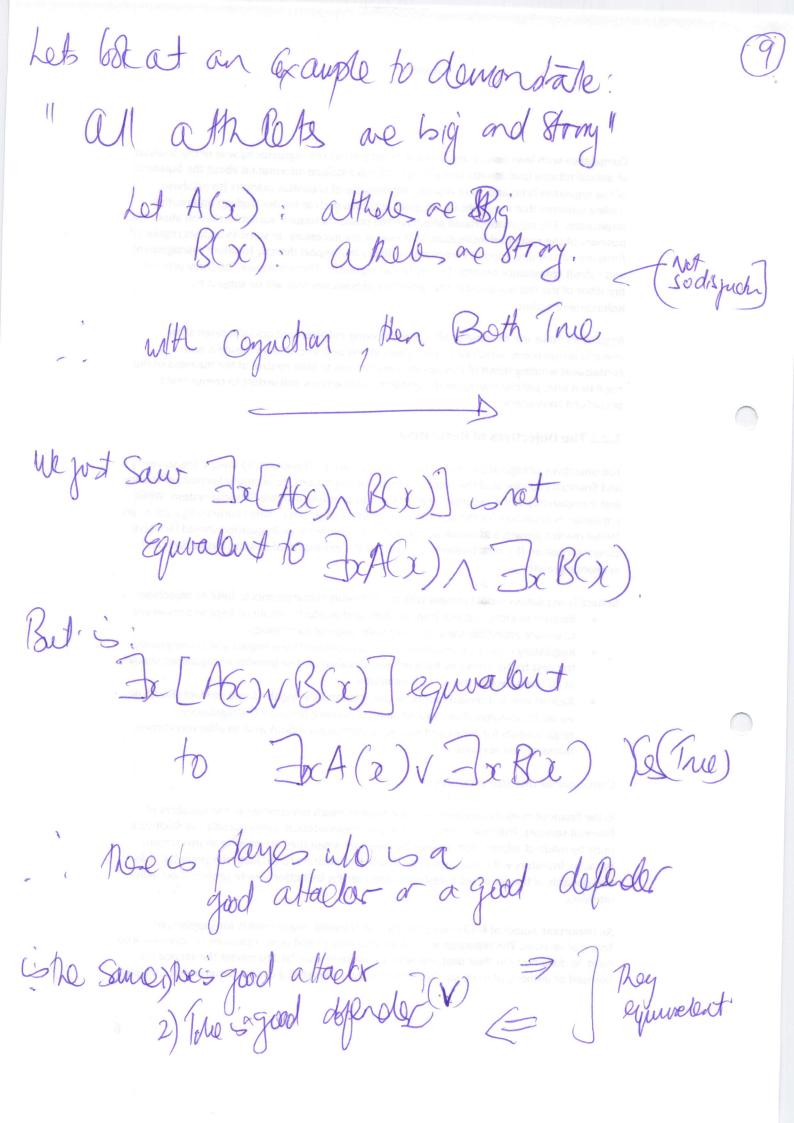
Time (Disjunction)

Time (Disjunction)

Time (Disjunction)

Time (Disjunction) to $\forall x A(x) \vee \forall e B(x)^{(take)}$ But 95 Hocha(x) AB(x) equivalent to

As txA(x) AtxB(x)? So, they are Equiralist



H 6" / (Cguehan) Godel true] is "Ite" V (dyastani)_atleat are to true here we have I with I have asabre, then thengo fall aport: Real numbers: g = x, y, zPatronal numbers: g = x, y, zFatronal numbers: g = x + y = 0Suppose the doman of qualification is the set of animals "Guey bopard has sports" (fx EL)S(x) For all x in set Loopards. x has spot

But leter & may have how, trops, so we will
have a lot of domants) of quarkfrens floathy arand

=> remember it should not be about Leopard, topsite,

if should be about ANIMALS

domains of Quantficalus Shalld Le about on mals usted of (bxEL)(Sx) x H Shald Se. bx [L(x)=> &x)] Fer all animals, if that animal "
is loopered", then it has spots" which will allow me to sep = to fac (Har) ~ Sco) "The saminal, which is horse, and has sport" $\forall x [T(\alpha) \Rightarrow \neg S(x)]$ "For all orinats, IB x is topen, then the does not have spot" - we is T(x), H(x) => their reports of animals