$_{L}IA,$

```
breakatwhitespace=false,
breaklines=true,
captionpos=b,
commentstyle=gray,
deletekeywords=...,
emphstyle=orange,
escapeinside=%**),
extendedchars=true,
frame=none,
keepspaces=true,
keywordstyle=blue,
numbers=left,
numbersep=5pt,
numberstyle=gray,
rulecolor=black,
showspaces=false,
showstringspaces=false,
showtabs=false,
stepnumber=2,
stringstyle=orange,
tabsize=2,
title=
```

ε

$\dot{F}$
F
$\neg F \approx SS$
S

$\overline{|\vee D)\sigma L \vee C \neg L' \vee D where L\sigma C\sigma \neg L'\sigma D\sigma\sigma = (L, L')}$

$[](L \vee C)\sigma(\neg L' \vee D)\sigma L \vee C \neg L' \vee D$

$(L \vee C) = L(\neg L' \vee D) = \neg L'\sigma = (L, L')$

$\boxed{\{\vee\neg(y), \neg(), ()\}[x \mapsto][y \mapsto]\neg(y)()(x) \vee \neg(y)\neg()_0\bot = \{(\bot) \vee \neg(\bot), \neg(), ()\} * satisfiable[x \mapsto]() \vee \neg(y)(x) \vee \neg(y))\neg()S_1\bot\{}$

$\{\}\exists\theta C\theta \subseteq D * C subsumes D S satisfiable \iff (S \setminus D) satisfiable \theta is proper, S \bot satisfiable \Longleftrightarrow (S \setminus D) \bot satisfiable \theta isr$

$\{\}\{\}\{\}\{\}\{\}\{\}\{\}\{\}\{\}\{\}\{\}\{\}11212{*}{*}{*}{*}\neg\neg((,z)) \mapsto \{.1..1.,.1..2.*\} \mapsto \{6\} \cap \{2,4,6\}$

$\ell_1((x,y)), \ell_2((x,())), \ell_3(((),))\ell_1 \mapsto ..*.*$
$\ell_2 \mapsto ..*..$
$\ell_3 \mapsto ....$

```
type_t
yices_bool_type(void);
type_t
yices_new_uninterpreted_type(void);
type_t
yices_function_type(uint32_t
n,
const
type_t
dom[],
type_t
range);
term_t
yices_new_uninterpreted_term(type_t
tau);
term_t
yices_application(term_t
fun,
uint32_t
n,
const
term_t
arg[]);
term_t
yices_eq(term_t
left,
term_t
right);
term_t
yices_not(term_t
arg);
term_t
yices_or(uint32_t
n,
term_t
arg[]);
int32_t
yices_assert_formula(context_t
*ctx,
term_t
t);
smt_status_t
yices_check_context(context_t
*ctx,
const
param_t
*params);
model_t
*yices_get_model(context_t
*ctx,
int32_t
keep_subst);
int32_t
yices_get_bool_value(model_t
*mdl,
term_t
t,
int32_t
```

$\{$
$\neg((,)),(x,)=$
$x\}*$
$unsatisfiable$
$S\bot=$
$\{(),\neg((,)),(\bot,)=$
$\bot\}*$
$satisfiable$
$\neq$
$y\vee$
$\neg()\vee$
$(y)*$
$,congruence$
$\neq$
s
$x\neq$
$y\vee$
$y=$
$xs\neq$
$t*$
$symmetry$
$x\neq$
$y\vee$
$y\neq$
$z\vee$
$x=$
$zs\neq$
$t*$
$transitivity$
$x_1\neq$
$y_1\vee$
$x_2\neq$
$y_2\vee$
$(x_1,x_2)=(y_1,y_2)(s_1,s_2)\neq$
(t_1,t_2)
$x\neq$
$y\vee$
$\neg(x)\vee$
$(y)(s)$
$x\neq$
$y\vee$
$\neg(x)\vee$
$(y)\neg(s)*$
$congruence$
Sym-
me-
try
re-
flex-
iv-
ity
con-
gru-
ence
$\overrightarrow{}$
$y=$
$x[x_1\mapsto x,x_2\mapsto x,y_1\mapsto y,y_2\mapsto x]x=y\wedge x=x\wedge x=x\rightarrow y=x[congruence]x_1=y_1\wedge x_2=y_2\wedge x_1=x_2\rightarrow y_1=y_2$
$\neq$
$y\vee$
$y\neq$
$z\vee$
$x=$
$z[x_1\mapsto x,x_2\mapsto y,y_1\mapsto x,y_2\mapsto z]x\neq x\vee y\neq z\vee x\neq y\vee x=z[congruence]x_1\neq y_1\vee x_2\neq y_2\vee x_1\neq x_2\vee y_1=y_2$

$\exists a_1 \dots a_m \forall y_1 \dots y_n \, F$

F

$x \vee \quad \neq$

$(, x), (y,)$

`flex`

`bison`