-------------------------------- MODULE appex1\_1 --------------------------------

EXTENDS Integers, TLC

CONSTANTS min, max, c

VARIABLES x,y,z,pc

-----------------------------------------------------------------------------------

Init == pc = "l1" /\ x= 121 /\ z= 2\*c /\ y = (z+1)^2

\\* initialisation

-----------------------------------------------------------------------------------

skip == UNCHANGED <<pc , x, y , z>>

\\* Defini un skip qui change R

-----------------------------------------------------------------------------------

al1l2 ==

/\ pc ="l1" /\ TRUE

/\ pc' = "l2"

/\ y' = x+z+1

/\ x' = x /\ z' = z

\\* Defini ta transition l1 -> l2

-----------------------------------------------------------------------------------

Next == skip \/ al1l2

\\* Definis les possibilités de transition

-----------------------------------------------------------------------------------

i ==

/\ pc \in {"l2", "l1"}

/\ pc = "l1" => x= 121 /\ z= 2\*c /\ y = (z+1)^2

/\ pc = "l2" => x= 121 /\ z= 2\*c /\ y =(c+1)^2

\\* Gere les etats atteignables

D == min..max

\\* Domaine atteignable

======================================================================

Vous dites quoi ici ? pour ex1 ? je lance pour c=11 ou -11 j’ai une erreur

la memej’ai modif c bon t’as change quoi ?

al1l2 j’avais enlevé un truc qu’il fallait pas

C=11 min=-32768, max=32767

Vous avez repondu quoi au question ?

pourquoi c=11 ? parce que 11²=121

Ca correspond a quoi : “la correction des annotations” ?

et “létude des déplacements de mémoire”

VOUS AVEZ REPONDU QUOI AU QUESTION

RIEN

“la correction des annotations” :

On pose c = 11 ou c = -11 pour avoir une annotation correcte,

Autre jsp

EXERCICE 2

int main(int a, int b,int c){

signed long int x = a,y = b,z = c;

*//@ assert x == y+3 && z == (y+3)\*(y+3);*

z = z+x\*x+2\*x\*(y+3);

*//@ assert z == (y+3+x)\*(y+3+x);*

return 0;

}

CMD : frama-c q2.c

\pow(truc,puissance)

//@ requires a == b+3 && c == (b+3)\*(b+3);

int main(int a, int b,int c){

signed long int x = a,y = b,z = c;

//@ assert x=y+3 && z=(y+3)\*(y+3);

z = z+x\*x+2\*x\*(y+3);

//@ assert z=(y+3+x)\*(y+3+x);

return 0;

}

quelqu’un peut me donner le retour svp - Sacha

quelqu’un peut me donner le retour svp - LOAN

[kernel] Parsing q2.c (with preprocessing)

[kernel:annot-error] q2.c:4: Warning:

Assignment operators not allowed in annotations.

[kernel] User Error: warning annot-error treated as fatal error.

QUELQUUN CHEZ QUI CA MARCHE PEUT NOUS DIRE SI CEST CORRECT OU INCORRECTE ?? Incorrecte avec gui et \pow

EXERCICE 3

Q1 :

EXTENDS Integers, TLC

CONSTANTS min, max

VARIABLES x,y,z,pc

-----------------------------------------------------------------------------------

Init == pc = "l1" /\ x= 10 /\ y= 2 /\ z = 3\*x

-----------------------------------------------------------------------------------

skip == UNCHANGED <<pc , x, y , z>>

-----------------------------------------------------------------------------------

al1l2 ==

/\ pc ="l1" /\ TRUE

/\ pc' = "l2"

/\ x' = z + y

/\ y' = y

/\ z' = z

al2l3 ==

/\ pc ="l2" /\ TRUE

/\ pc' = "l3"

/\ x' = x

/\ y' = x - z

/\ z' = z

-----------------------------------------------------------------------------------

Next == skip \/ al1l2 \/ al2l3

-----------------------------------------------------------------------------------

i ==

/\ pc \in {"l2", "l1","l3"}

/\ pc = "l1" => x= 10 /\ y= 2 /\ z = 3\*x

/\ pc = "l2" => x = 32 /\ y = 2

/\ pc = "l3" => x = 32 /\ y = 2

D == min..max

ENVOYER LE MSG DE FRAMA-C EXERCICE 2

Q2 (Bonus du chef)

EXTENDS Integers, TLC

CONSTANTS min, max

VARIABLES x,y,pc

-----------------------------------------------------------------------------------

Init == pc = "l1" /\ x= 4 /\ y= 8

-----------------------------------------------------------------------------------

skip == UNCHANGED <<pc , x, y>>

-----------------------------------------------------------------------------------

al1l2 ==

/\ pc ="l1" /\ TRUE

/\ pc' = "l2"

/\ x' = 3\*y

/\ y' = y

-----------------------------------------------------------------------------------

Next == skip \/ al1l2

-----------------------------------------------------------------------------------

i ==

/\ pc \in {"l2", "l1"}

/\ pc = "l1" => x= 4 /\ y= 8

/\ pc = "l2" => x= 24 /\ y= 8

D == min..max

Bon bas il me faut l’exo 4

merci chef je peux pas lancer de frama c déso

ENVOYER LE MSG DE FRAMA-C EXERCICE 2

ENVOYER LE MSG DE FRAMA-C EXERCICE 2

QUELQUUN CHEZ QUI CA MARCHE PEUT NOUS DIRE SI CEST CORRECT OU INCORRECTE ?? EXERCICE 2

Pour moi c’est incorrecte en utilisant le gui et \pow

QUESTION 2 : AVEC INVARIANT I ça marche pas ducoup faut conclure quoi ?

-------------------------------- MODULE ex3 --------------------------------

EXTENDS Integers, TLC

CONSTANTS min, max

VARIABLES x,y,pc

-----------------------------------------------------------------------------------

Init == pc = "l1" /\ x = 4 /\ y = 8

\\* initialisation

-----------------------------------------------------------------------------------

skip == UNCHANGED <<pc , x, y>>

\\* Defini un skip qui change R

-----------------------------------------------------------------------------------

al1l2 ==

/\ pc ="l1" /\ TRUE

/\ pc' = "l2"

/\ y' = y

/\ x' = 3\*y

-----------------------------------------------------------------------------------

Next == skip \/ al1l2

-----------------------------------------------------------------------------------

i ==

/\ pc \in {"l2", "l1"}

/\ pc = "l1" /\ x = 4 /\ y = 8

/\ pc = "l2" => x = 24 /\ y = 8

D == min..max

======================================================================

ENVOYER LE MSG DE FRAMA-C EXERCICE 2

[kernel] Parsing q2.c (with preprocessing)

[rte] annotating function main

[wp] Running WP plugin...

[wp] 16 goals scheduled

[wp] [Alt-Ergo 2.4.1] Goal typed\_main\_requires\_3 : Valid (Qed:0.51ms) (8ms) (17) (cached)

[wp] [Alt-Ergo 2.4.1] Goal typed\_main\_requires\_2 : Valid (8ms) (17) (cached)

[wp] [Alt-Ergo 2.4.1] Goal typed\_main\_requires : Valid (Qed:2ms) (8ms) (17) (cached)

[wp] [Alt-Ergo 2.4.1] Goal typed\_main\_assert\_rte\_signed\_overflow\_3 : Valid (Qed:4ms) (7ms) (22) (cached)

[wp] [Alt-Ergo 2.4.1] Goal typed\_main\_assert\_rte\_signed\_overflow\_2 : Valid (Qed:3ms) (7ms) (21) (cached)

[wp] [Alt-Ergo 2.4.1] Goal typed\_main\_assert\_rte\_signed\_overflow : Valid (Qed:4ms) (8ms) (22) (cached)

[wp] [Alt-Ergo 2.4.1] Goal typed\_main\_assert\_rte\_signed\_overflow\_6 : Valid (Qed:3ms) (7ms) (21) (cached)

[wp] [Alt-Ergo 2.4.1] Goal typed\_main\_assert\_rte\_signed\_overflow\_5 : Valid (Qed:4ms) (7ms) (22) (cached)

[wp] [Alt-Ergo 2.4.1] Goal typed\_main\_assert\_rte\_signed\_overflow\_4 : Valid (Qed:6ms) (7ms) (21) (cached)

[wp] [Alt-Ergo 2.4.1] Goal typed\_main\_assert\_rte\_signed\_overflow\_9 : Valid (Qed:4ms) (16ms) (113) (cached)

[wp] [Alt-Ergo 2.4.1] Goal typed\_main\_assert\_rte\_signed\_overflow\_8 : Valid (Qed:4ms) (15ms) (113) (cached)

[wp] [Alt-Ergo 2.4.1] Goal typed\_main\_assert\_rte\_signed\_overflow\_7 : Valid (Qed:5ms) (7ms) (22) (cached)

[wp] [Alt-Ergo 2.4.1] Goal typed\_main\_assert\_2 : Valid (Qed:8ms) (10ms) (62) (cached)

j’ai ca mais copiez vraiment pas

ELLE ETS CORRECTE OU PAS ?

LI