Practica 1

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Ejercicio 1

Nodo n	IN[n]	OUT[n]
1	-	$\emptyset$
2	$\emptyset$	$\{[x, 2]\}$
3	$\{[x, 2]\}$	$\{[x, 2], [y, 3]\}$
4	$\{[x, 2], [y, 3], [x, 6], [y, 5]\}$	$\{[x, 2], [y, 3], [x, 6], [y, 5]\}$
5	$\{[x, 2], [y, 3], [x, 6], [y, 5]\}$	$\{[x, 2], [y, 5], [x, 6]\}$
6	$\{[x, 2], [y, 5], [x, 6]\}$	$\{[x, 6], [y, 5]\}$
7	$\{[x, 2], [y, 3], [x, 6], [y, 5]\}$	-

Ejercicio 2

$$IN[n] = \bigcup_{n' \in pred(n)} OUT[n']$$
$$OUT[n] = (IN[n] - KILL[n]) \cup GEN[n]$$

Ejercicio 3

Nodo n	IN[n]	OUT[n]
1	-	$\{b - a\}$
2	$\{b - a\}$	$\{b - a\}$
3	$\{a - b, b - a\}$	$\{a - b\}$
4	$\{b - a\}$	$\emptyset$
5	$\emptyset$	$\{a - b\}$
6	$\{a - b\}$	$\emptyset$
7	$\{a - b\}$	$\emptyset$
8	$\emptyset$	-

Ejercicio 4

$$OUT[n] = \bigcup_{n' \in pred(n)} IN[n']$$
$$IN[n] = (OUT[n] - KILL[n]) \cup GEN[n]$$

Ejercicio 5

b)

Nodo n	IN[n]	OUT[n]
0	-	{pid}
1	{pid}	{pid, j}
2	{pid, j}	{pid, j, i}
3	{pid, j, i}	{pid, k, j}
4	{pid, k, j}	{pid, k, j}
5	{pid, k, j}	{pid, k, h}

Nodo n	IN[n]	OUT[n]
6	{pid, k, h}	{pid, k, h}
7	{pid, k}	{pid, k, h}
8	{pid, k, h}	{answer, pid, k}
9	{answer, pid, k}	∅
10	∅	-

Ejercicio 6

En *availableexpressionsanalysis* vamos a considerar que se mata toda expresión que tenga algún operando overrideado por la operación actual. Se genera la expresión actual.

Nodo n	IN[n]	OUT[n]
0	-	∅
1	∅	∅
2	∅	∅
3	∅	∅
4	∅	{m[i]}
5	{m[i]}	∅
6	∅	∅
8	∅	{bar(M, a)}
9	{bar(M, a)}	-

Ejercicio 7

	Forward	Backward
May	Reaching definitions	Live variables
Must	Available Expressions	Very busy expressions

Ejercicio 8

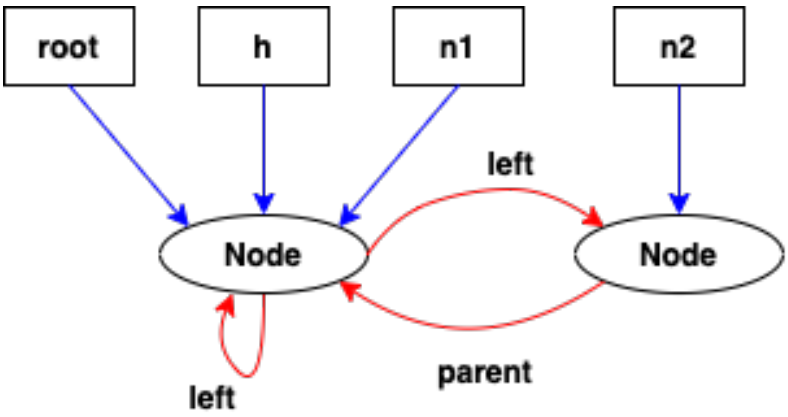

Figure 1: Points to graph