

# ESERCIZIO 1 - VERY BUSY EXPRESSIONS

DOMAIN: INSIEME DELLE ESPRESSIONI

DIRECTION: BACKWARD

$$out[BB] = 1 \text{ in } [next(BB)]$$

$$in[BB] = f_{BB}[out(BB)]$$

$$\text{TRANSFER FUNCTION: } f_{BB}(out[BB]) = GEN(BB) \cup (out[BB] - KILL(BB))$$

MEET OPERATOR:  $\cap$

$$\text{BOUNDARY CONDITION: } in[EXIT] = \emptyset$$

$$\text{INITIAL INTERIOR CONDITIONS: } in[BB_i] = \emptyset, \forall i$$

## ESERCIZIO 2 - DOMINATOR ANALYSIS

operator: inverse OE/BB

DIRECTION: FORWARD

$$\text{IN}[BB_i] = \text{OUT}(\text{PREV}(BB_i))$$

$$\text{OUT}[BB_i] = f_{BB_i}(\text{IN}[BB_i])$$

TRANSFER FUNCTION:  $f_{BB_i} = BB_i \cup \text{IN}[BB_i]$

MEET OPERATOR:  $\cap$

BOUNDARY CONDITION:  $\text{OUT}[\text{ENTRY}] = \emptyset$

INITIAL INTERIOR CONDITION:  $\text{OUT}[BB_i] = \mathcal{U}$  (UNIVERSAL SET)

# ESERCIZIO CFG VERY BUSY EXPRESSIONS

	ITERAZIONE 1		ITERAZIONE 2	
	OUT	IN	OUT	IN
BB1	B - A	<del>X</del>		
BB2	B - A	B - A		
BB3	A - B	A - B, B - A		
BB4	$\emptyset$	A - B		
BB5	$\emptyset$	B - A		
BB6	A - B	$\emptyset$		
BB7	$\emptyset$	A - B		
BB8	<del>X</del>	$\emptyset$		

# ESERCIZIO CFG DOMINATOR ANALYSIS

	ITERAZIONE 1		ITERAZIONE 2	
	IN	OUT	IN	OUT
A	$\emptyset$	A		
B	A	A, B		
C	A	A, C		
D	A, C	A, C, D		
E	A, C	A, C, E		
F	A, C	A, C, F		
G	A	A, G		