Algoritmos y estructuras de datos
Departamento de computación UBA

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3 Práctica 3 - Resoluciones

3.1 Ejercicio 1

(a) def(a+1) = def(a)

(b) def(a/b) = def(a) $\wedge$ (def(b) $\wedge_L$ b $\neq 0$)

(c) def($\sqrt{\frac{a}{b}}$) = (def(a) $\wedge$ (def(b) $\wedge_L$ b $\neq 0$)) $\wedge_L$ ((a $> 0 \wedge$ b > 0) $\vee$ (a $< 0 \wedge$ b < 0))

3.2 Ejercicio 2

a $\in \mathbb{R}$, b $\in \mathbb{R}$, i $\in \mathbb{Z}$, A: seq$\langle\mathbb{R}\rangle$

(a) wp(**a := a + 1, b := a/2**, b ≥ 0) = def(a + 1) $\wedge_L$ def(a/2) $\wedge_L \frac{a+1}{2} \geq 0$

wp = true $\wedge_L$ true $\wedge_L a + 1 \geq 0$

wp = $a \geq -1$

(c) wp(**a := A[i] + 1, a := b*b**, a ≥ 0) = def(A[i] + 1) $\wedge_L$ def(b * b) $\wedge_L b^2 \geq 0$

wp = $(\forall i : \mathbb{Z})(0 \leq i < |A|) \wedge_L$ true $\wedge_L$ true

wp = $(\forall i : \mathbb{Z})(0 \leq i < |A|)$

*Preguntar