**Aufgabe 4**

**Algebra: Priority Queue**

**Sorts**: queue, elem , pair, int

**Ops**

empty : → queue

front : queue → pair

enqueue : queue × pair → queue

dequeue : queue → queue

isempty : queue → bool

**Sets**

pair = {(elem, int)}

queue = {<, …> | n }

elem = ???

**functions**

empty = ◊

front (a1 ... an) =

enqueue (a1 ... an, (x,prio)) = a1 ..., (x,prio)i, … an falls prio > (ai-1).prio und prio < (ai)

=

dequeue (a1 ... an) =

isempty (a1 ... an) = (n = 0)