Little language, machine computation

datatype reg = R of int
datatype opn = ADD | SUB | BAND | BOR | SHL | ...
datatype exp
   = LOAD of exp (* memory *)
   | IMM of int (* 'immediate' constant *)
   | REG of reg
   | OPN of opn * reg * reg

Query: is a register used in a computation?
Language of expressions

Numbers and Booleans:

datatype exp = ARITH of arithop * exp * exp
            | CMP of relop * exp * exp
            | LIT of int
            | IF of exp * exp * exp

and arithop = PLUS | MINUS | TIMES | ...
and relop = EQ | NE | LT | LE | GT | GE

datatype ty = INTTY | BOOLTY