Sequences of Statements (another view)

{P}
S1;
S2
{Q}

wp(x:=y+1;z:=x+y,z>5)

{??} x:=y+1; z:=x+y {z>5}	{??} x:=y+1; {x+y>5} z:=x+y {z>5}

wp(x:=y+1, x+y >5)

{??} x:=y+1; {x+y>5} {x+y>5} z:=x+y {z>5}	{y>2} x:=y+1;{x+y>5} {x+y>5} z:=x+y{z>5}

{P} = {y>2}

3.6.3.4 Assignment Statement (p. 149, Sebesta)

$M_a(x=E, s)\ \Delta=$ if $M_e(E, s) =$ **error**
then **error**
else $s' = \{<i_1', v_1'>, <i_2', v_2'>, \ldots, <i_n', v_n'>\}$ where
for $j = 1, 2, 3, \ldots, n$, $v_j' = VARMAP(i_j, s)$ if $i_j <> x$;
$M_e(E, s)$ if $i_j = x$

15 (c)

$M_b(B, s)$ Δ= if VARMAP(i, s) = **undef** for some i in B
then **error**
else B′, where B′ is the result of evaluating B after
setting each variable i in B to VARMAP(i, s)

15 (d)

M_{cf}(for(expr1;expr2, expr3)L, s) Δ=

if VARMAP(i, s) = **undef** for some i in expr1;expr2, expr3, or L

then **error**

else if M_e(expr2, M_e(expr1, s) = 0

then s

else M_{recur}(expr2,expr3, L,s)

M_{recur}(expr2,expr3, L, s) Δ=

if VARMAP(i, s) = **undef** for some i in expr1;expr2, expr3, or L

then **error**

else if M_{sl}(L, s) = error

then s

else M_{recur}(expr2,expr3, L, M_{sl}(L, M_e(expr3,s))