Q1

	Sound?	Complete?
Cx = {e,d}	Not sounds as we only get e and d	Incomplete as it doesn't give all atoms
Cy = {a,b,c,d,e,f,g}	On solving we only get {e,d,c,f} so its unsound	Complete as we can derive all atoms

Q2

{}

{down_s1, up_s2, up_s3, ok_cb1, ok_cb2, live_outside}. (given)

{down_s1, up_s2, up_s3, ok_cb1, ok_cb2, live_outside, live_w5}   (from live_outside)

{down_s1, up_s2, up_s3, ok_cb1, ok_cb2, live_outside, live_w5, live_w6} (from live_w5 ^ ok_cb2)

{down_s1, up_s2, up_s3, ok_cb1, ok_cb2, live_outside, live_w5, live_w6, live_p2} (from live_w6)

{down_s1, up_s2, up_s3, ok_cb1, ok_cb2, live_outside, live_w5, live_w6, live_p2, live_w3}   (from live_w5 ^ ok_cb1)

{down_s1, up_s2, up_s3, ok_cb1, ok_cb2, live_outside, live_w5, live_w6, live_p2, live_w3, live_p1}   (from live_w3)

{down_s1, up_s2, up_s3, ok_cb1, ok_cb2, live_outside, live_w5, live_w6, live_p2, live_w3, live_p1, live_w4}   (from live_w3 ^ up_s3)

{down_s1, up_s2, up_s3, ok_cb1, ok_cb2, live_outside, live_w5, live_w6, live_p2, live_w3, live_p1, live_w4, live_l2}   (from live_w4)

{down_s1, up_s2, up_s3, ok_cb1, ok_cb2, live_outside, live_w5, live_w6, live_p2, live_w3, live_p1, live_w4, live_l2, live_w2}   (from live_w3 ^ down_s1)

{down_s1, up_s2, up_s3, ok_cb1, ok_cb2, live_outside, live_w5, live_w6, live_p2, live_w3, live_p1, live_w4, live_l2, live_w2}   (from live_w3 ^ down_s1)