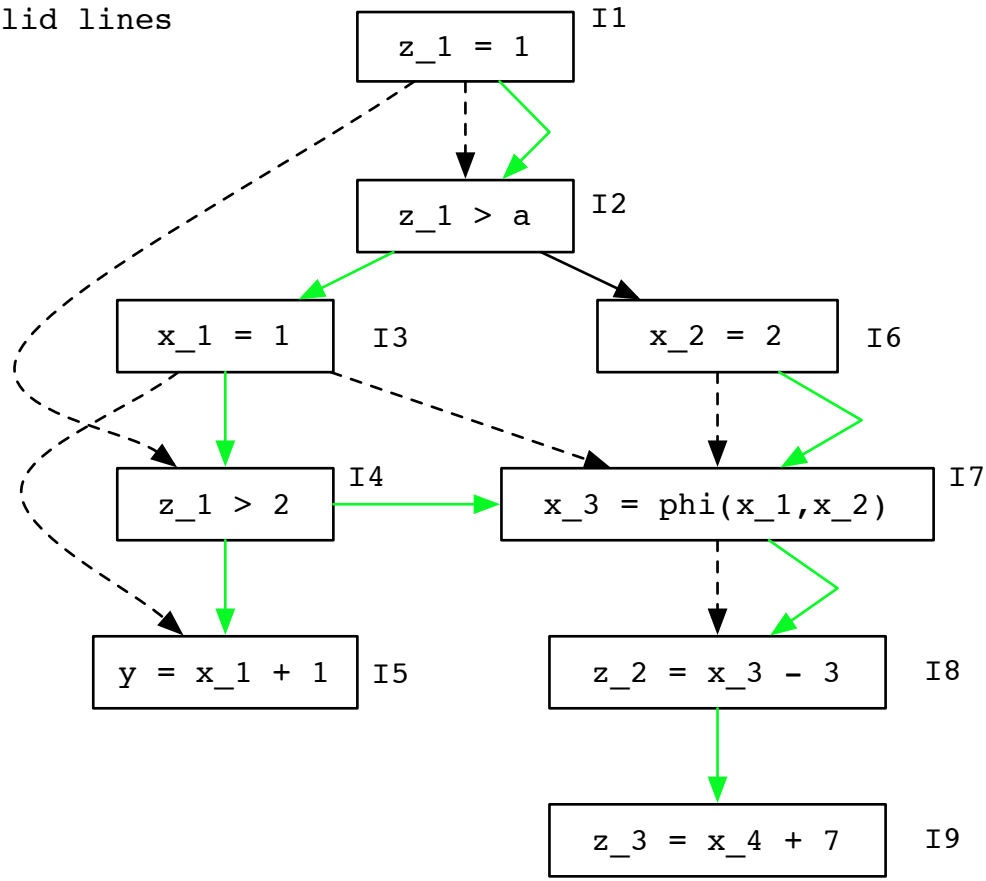
SSA Edges are black dashed lines
CFG Edges are green solid lines



Constant Propagation on SSA [http://www.cs.rice.edu/~keith/512/Lectures/]
Initialization Pass
  Value(z_1) = 1, Value(x_1) = 1, Value(x_2) = 2
Include SSA edge <u,v> in worklist if Value(u) != TOP
  Worklist = {<I1,I2>,<I1,I4>,<I3,I5>,<I3,I7>,<I6,I7>}
While Worklist is not empty
  Value(I4) = false, Value(I4) = Value(y) = 2, Value(I7) = Value(x_3) = BOT

Live Variable Analysis on SSA
Initialization Pass
  IN(I2) = {z_1,a}, IN(I4) = {z_1}, IN(I5) = {x_1}, IN(I8) = {x_3},
  IN(I9) = {x_4}
Final Answer, lets just look at IN(I3). The answer should be (observe the green control flow edges) ...
  IN(I3) = {z_1}
however, there is no way to get this answer by traversing only the edges in SSA.