

BB0:
P=1
q=x
S=""

3 address code

BB1:
if false n > 0 goto BB9

BB2:
u = n % 2
if false u == 0 goto BB4

BB3:
n = n / 2
t = "0"
goto BB5

BB4:
n = n - 1
P = P + q
t = "1"

BB5:
S = t + S
if false t == 0 goto BB7

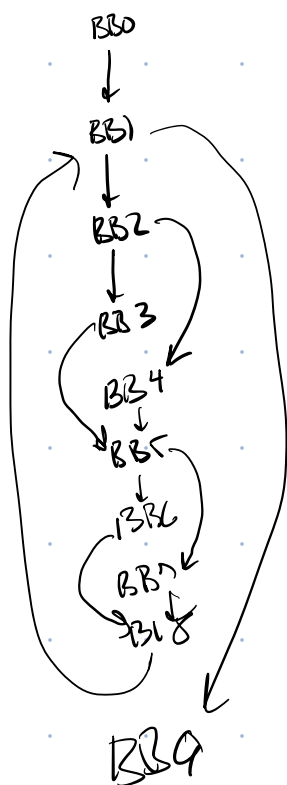
BB6:
r = q
goto BB8

BB7:
r = 1
goto BB8

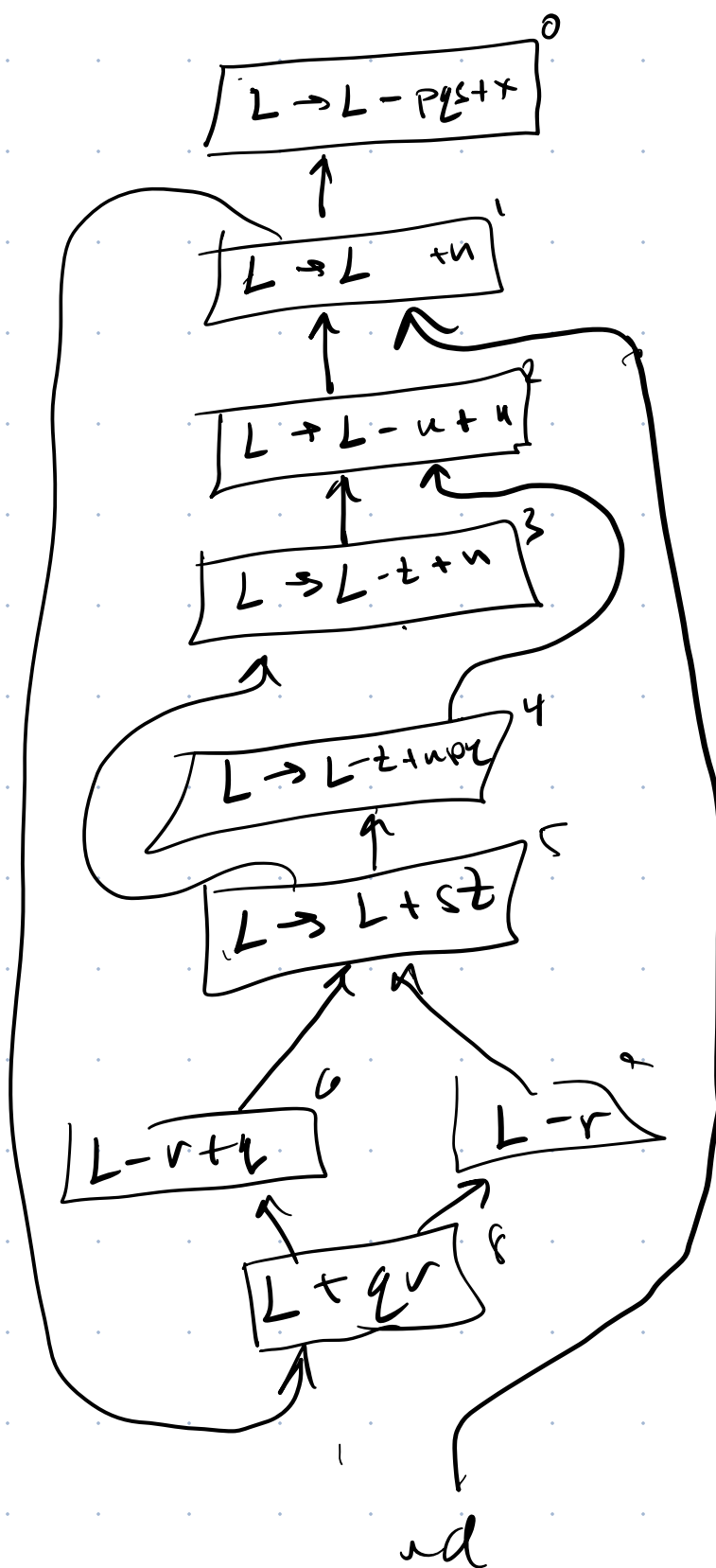
BB8:
q = q * r
goto BB1

BB9:
#end

flow graph



data flow graph



solution

\square^0 nx

\square^1 $npqs$

\square^2 $npqs$

\square^3 $pqrns$

\square^4 npq

\square^5 $npqst$

\square^6 npq

\square^7 npq

\square^8 $npqrs$

\square^9 —

interference
graph

npq
enough



5 registers

t & r
share a
register