

Entry

X

```
graph TD; Entry --> X; subgraph X; Init["{ a := ϕ [0, Entry] [a', Z]  
i := ϕ [0, Entry] [i', Z] }"]; Body["if [not (i < N)] goto Exit  
a' := a + 2"]; end; X --> Y; subgraph Y; IncY["c := i + 3"]; end; Y --> Z; subgraph Z; IncZ["i' := a' + c"]; end; Z --> X; X --> Exit;
```

$\{ a := \phi [0, Entry] [a', Z]$
 $i := \phi [0, Entry] [i', Z] \}$
if [not ($i < N$)] ***goto*** *Exit*
 $a' := a + 2$

Y

$c := i + 3$

Z

$i' := a' + c$

Exit