

$X_1$ 

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

 $Y_1$  $c := i + 3$  $Z_1$  **$i' := a\_reg + c$**  $X_2$ 

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

 $Y_2$  $c := i + 3$  $Z_2$  $i' := a' + c$