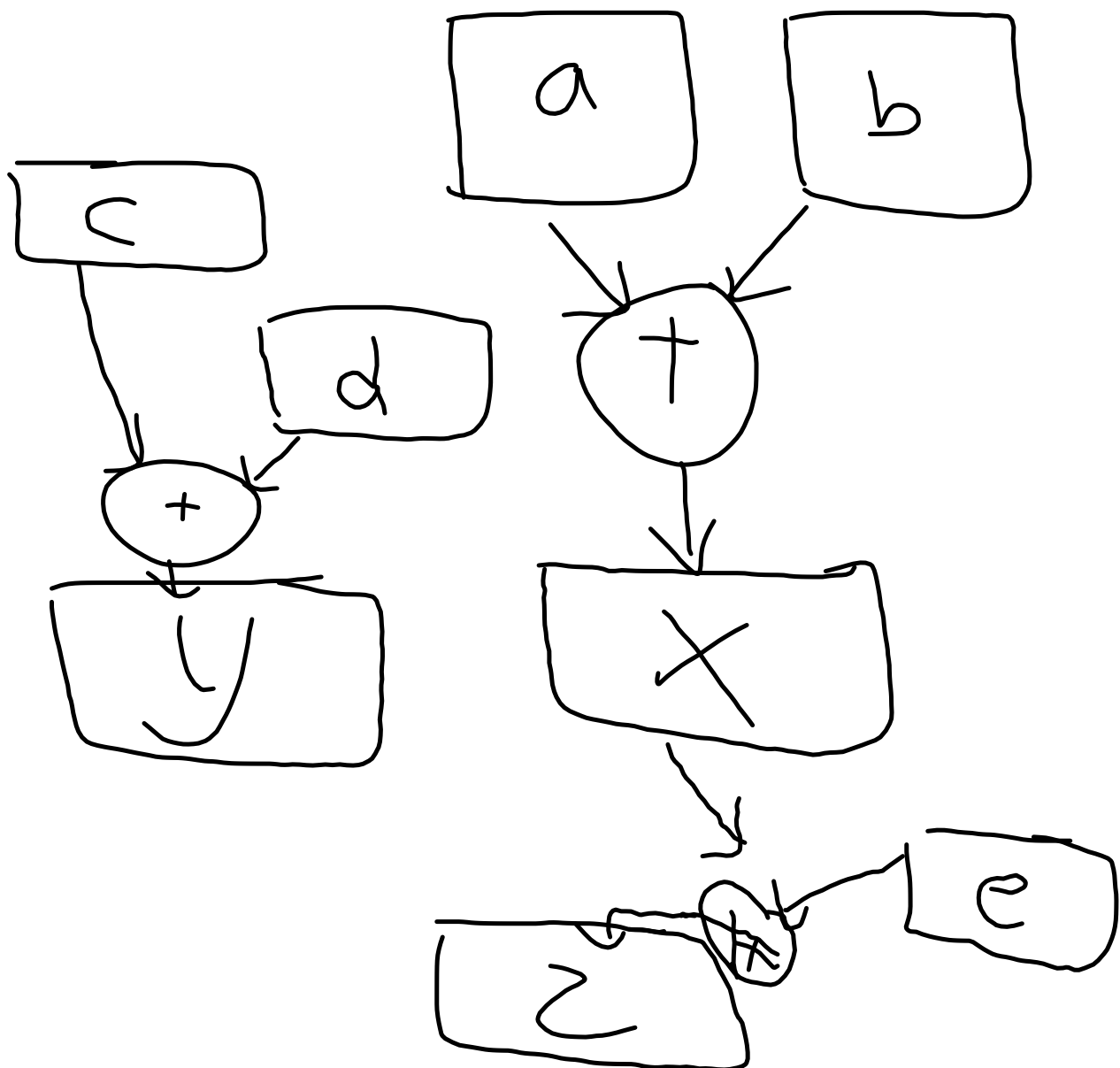
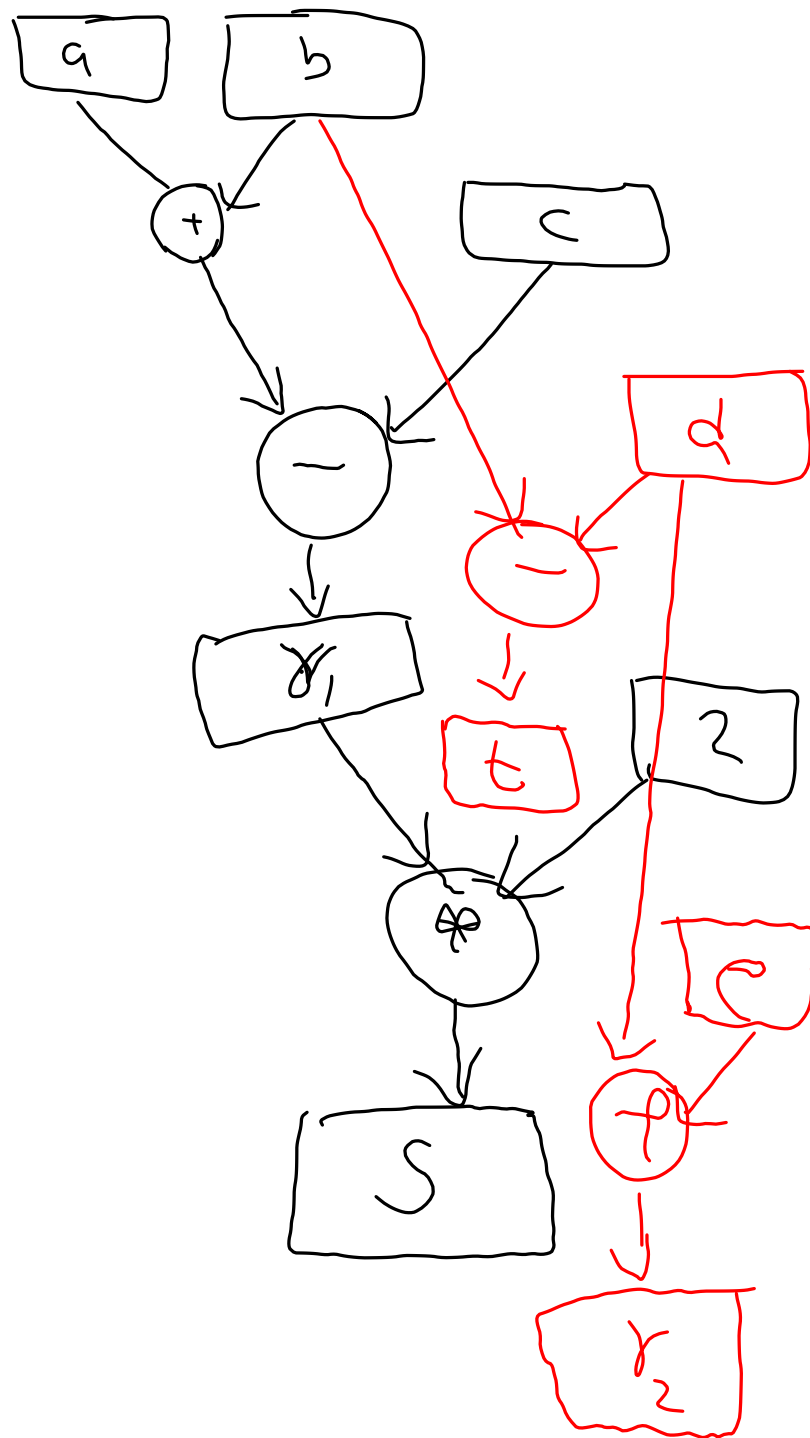
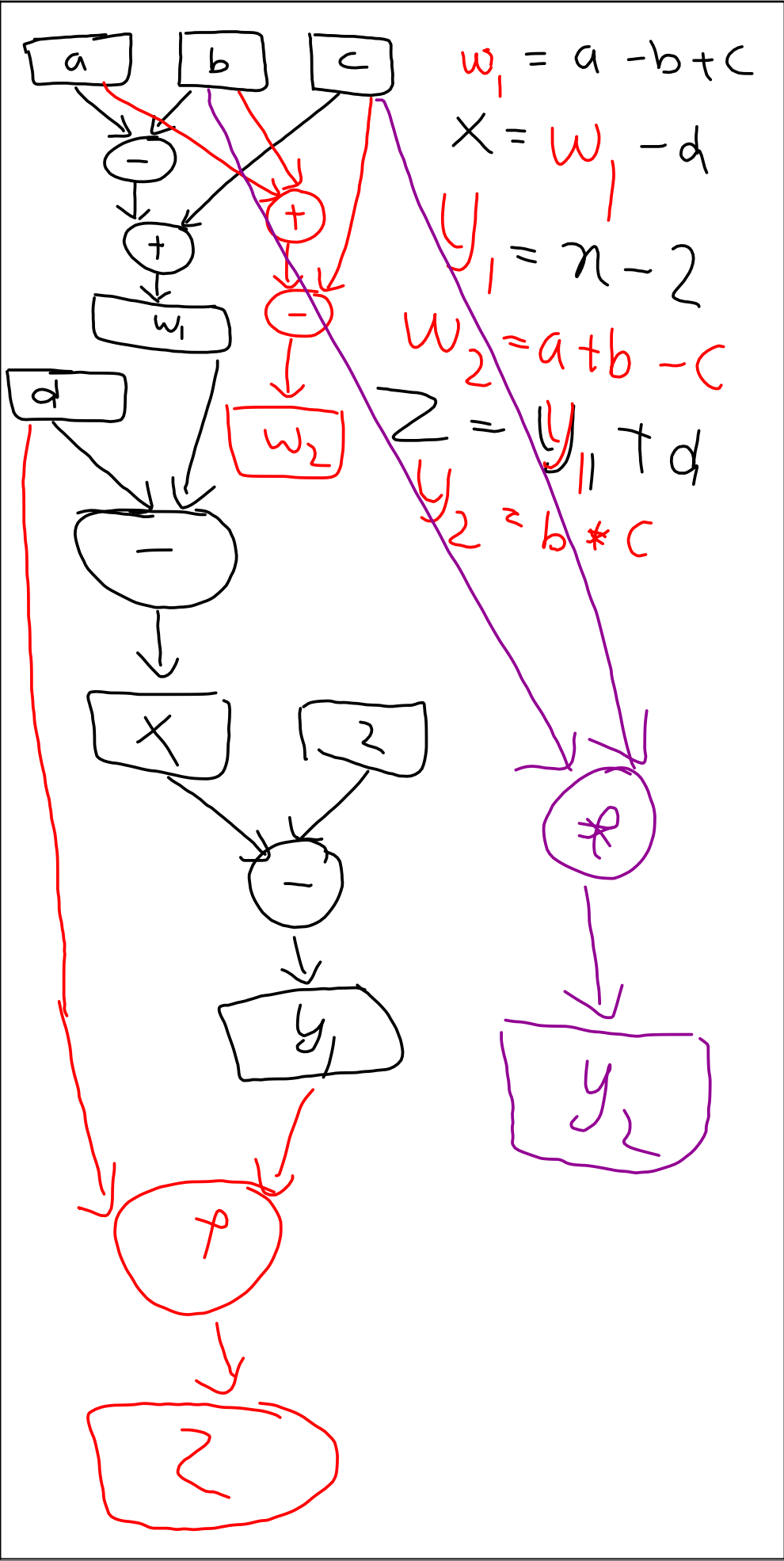


a.  $x = a + b;$   
 $y = c + d;$   
 $z = x + e;$

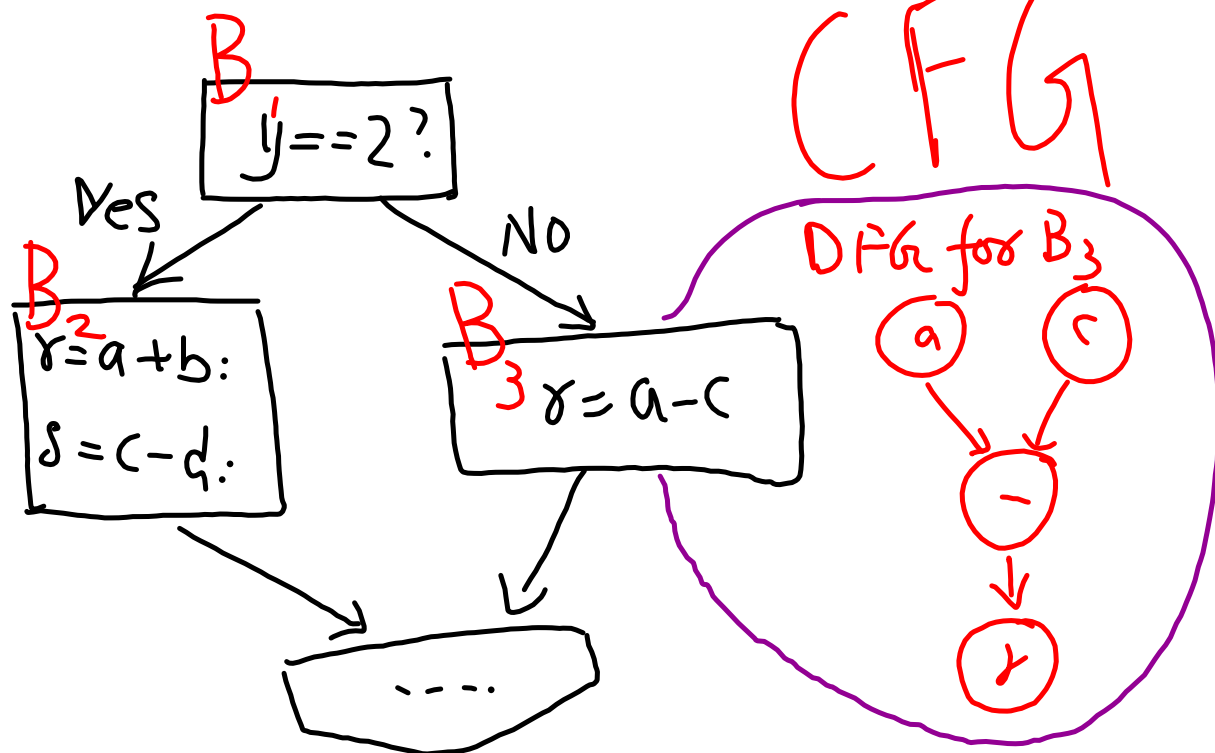


b.  $r = a + b - c;$   $\gamma_1 = a + b - c$   
 $s = 2 * r;$   $S = 2 * \gamma_1$   
 $t = b - d;$   $\Rightarrow t = b - d$   
 $r = d + e;$   $\gamma_2 = d + e$





a. if ( $y == 2$ ) { $r = a + b$ ;  $s = c - d$ ;}  
else  $r = a - c$



**b.** `x = 1; if (y == 2) { r = a + b; s = c - d; }  
else { r = a - c; }`

```
e. for (i = 0; i < N; i++) {  
    if (a[i] == 0)  
        x[i] = 5;  
    else  
        x[i] = a[i]*b[i];  
}
```

```
i = 0;  
while (i < N) {
```

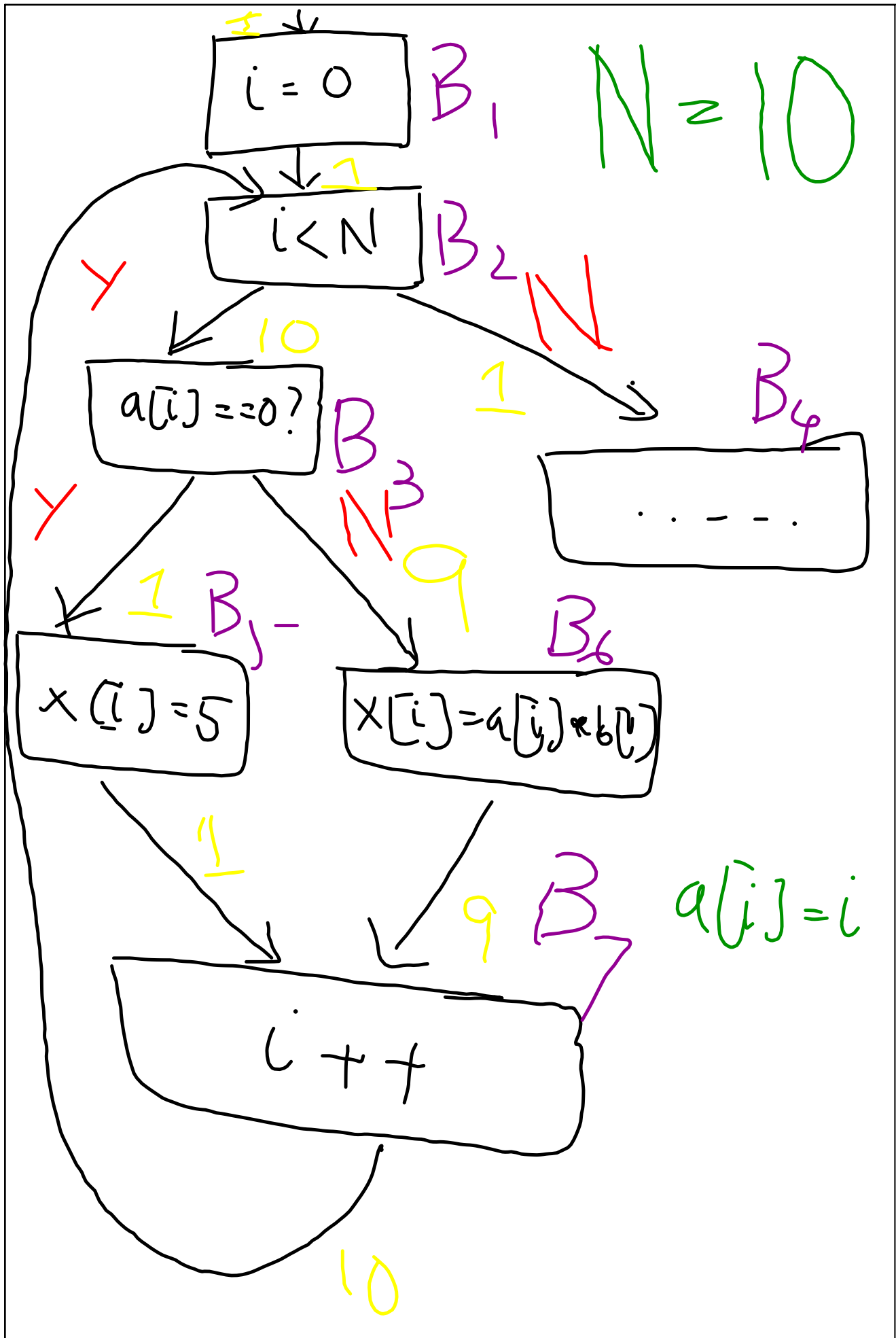
```
    if (a[i] == 0)
```

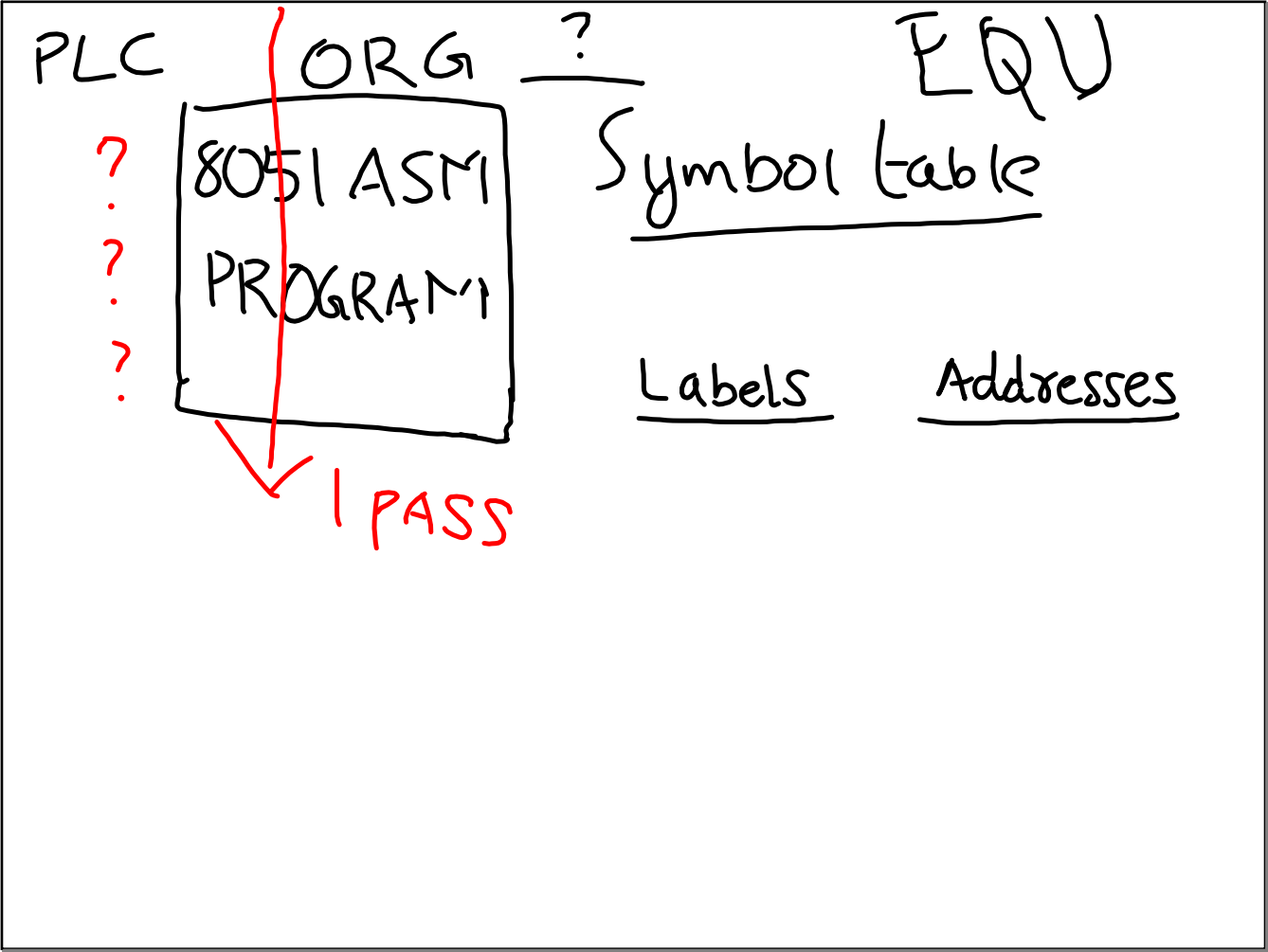
```
        x[i] = 5
```

```
    else
```

```
        x[i] = a[i] * b[i];
```

```
    i++;  
}
```







PLC: 100 ORG 100

→ MOV A, B

PLC = 100 + 2 →

→ INC A

PLC = 100 + 2 + 1 →

L1 → DEC A

L1 103