C Programming
Day04.B

if
if ... else

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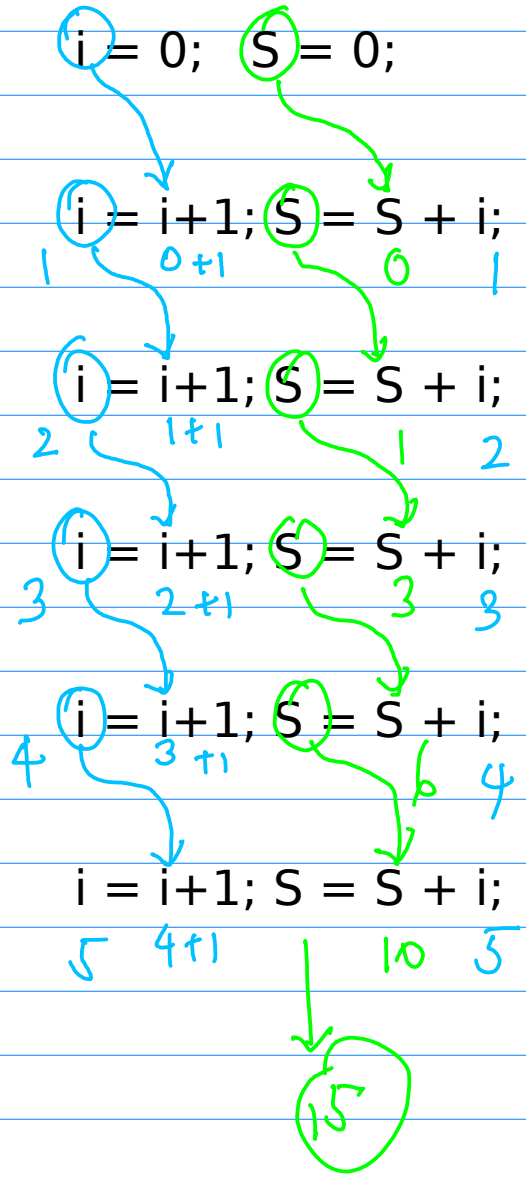
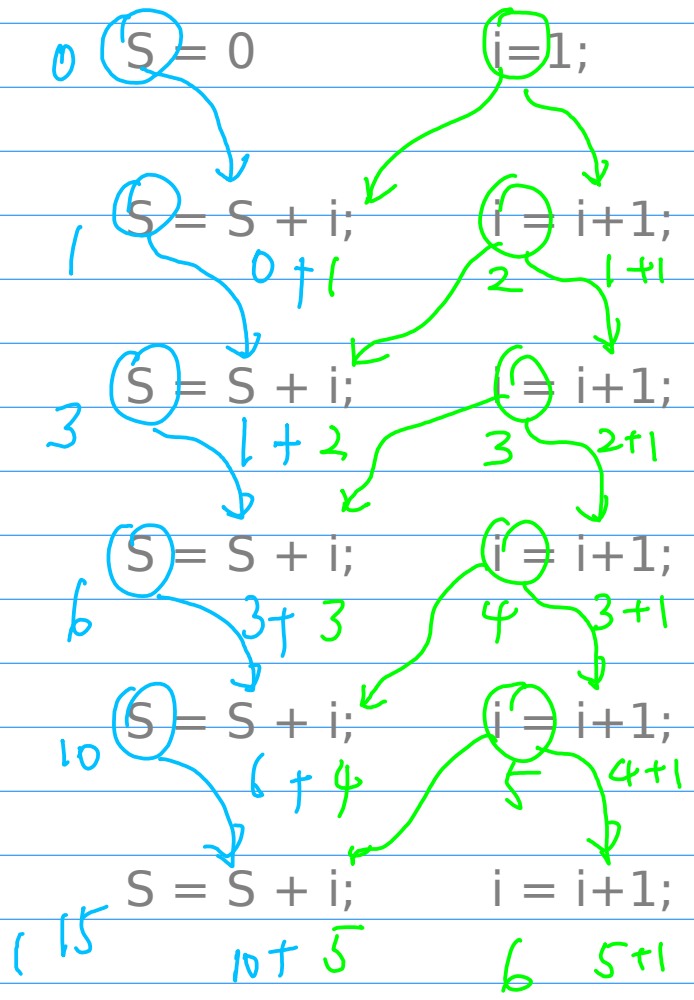

i = 0; S = 0;
i = i+1; S = S + i;
0 +1
0
1
i = i+1; S = S + i;
1+1
1
2
i = i+1; S = S + i;
2+1
3
3
i = i+1; S = S + i;
3 +1
6
4
i = i+1; S = S + i;
4+1
10
5
15


S = 0
i=1;
S = S + i;
i = i+1;
S = S + i;
i = i+1;
S = S + i;
i = i+1;
S = S + i;
i = i+1;
S = S + i;
i = i+1;
0
1
0+1
2
1+1
3
1+2
3
2+1
6
3+3
4
3+1
10
6+4
5
4+1
15
10+5
6
5+1

```c
#include <stdio.h>

int main(void) {
  int i=0, S=0;

  while (i<5) {
        printf("old i= %d --> ", i);
    i = i + 1;
        printf("i=%d + ", i);
        printf("old S= %d --> ", S);
    S = S + i;
        printf("S= %d\n", S);
  }
  printf("S= %d \n", S);
}
~
```

```
old i= 0 --> i=1 + old S= 0 --> S= 1
old i= 1 --> i=2 + old S= 1 --> S= 3
old i= 2 --> i=3 + old S= 3 --> S= 6
old i= 3 --> i=4 + old S= 6 --> S= 10
old i= 4 --> i=5 + old S= 10 --> S= 15
S= 15
```