cc-practice-continue

Example: summing up numbers.

The loop terminates when 10 non-zero numbers have been read. Whenever the number `0` is read, `continue` is executed, the rest of the loop body is skipped, but we're still inside the loop.

Input file:

```bash
echo 1 1 1 1 1 1 1 1 0 1 1 > ./src/continue
cat ./src/continue
```

Pseudo code:

```
while n smaller than 10
  get input i           // scanf
  if input is 0 go back // continue
  else add input to sum // sum += i
  increment n           // n++
print sum               // printf
```

Code:

```
int n=0, sum = 0;
int i;

while ( n < 10 ) {
  scanf("%d", &i);
  if ( i == 0 )
    continue;
  sum += i;
  n++;
  /* continue jumps to here */
 }
printf("sum is %d\n", sum);
```

```
sum is 10
```

```
sum is 10
```

Problem

Change the code in [1] so that you do not use `continue` but still get the desired result.

Solution

Answer: change the `if` statement so that the summing is bypassed.

```
if ( i != 0 ) {
    sum += i;
    n++;
    }
```

Pseudo code:

```
while n smaller than 10
  get input i           // scanf
  if input is NOT 0
    add input to sum    // sum += i
    increment n         // n++
print sum               // printf
```

Code:

```
int n=0, sum = 0;
int i;

while ( n < 10 ) {
  scanf("%d", &i);
  if ( i != 0 ) {
    sum += i;
    n++;
  }
 }
printf("sum is %d\n", sum);
```

```
sum is 10
```

```
sum is 10
```

Author: Marcus Birkenkrahe [pledged]
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