

```
for (i=0; i<10; i++) {  
    body  
}  
next statement;
```

(a)

```
set r4 to zero  
label1: compare r4 to 10  
branch to label2 if >=  
code to perform body  
increment r4  
branch to label1  
label2: code for next statement
```

(b)

Figure 9.3 (a) A *for* statement used in a high-level language, and (b) the equivalent assembly language code using register 4 as an index.