Lab5

$$C = \left(\frac{5}{9}\right) * (F-32)$$

$$\Rightarrow C = \frac{5 * (F-32)}{9}$$

- input a F°
- mov F° to a reg] (F-32)] *5
- Subtract reg with 32
- multiply reg with 5
- prepare division — sign ext. for dividend] ÷9
- mov divisor (9) to a reg
- idiv
- mov Q (quotient) to C°

---

more detail

```
mov eax, F1      ; F1 -> DW   ] (F-32) ] *5
sub eax, 32
imul eax, 5
cdq              ; edx <- eax   sign ext.      ] /9
mov ebx, 9
idiv ebx;        ; edx:eax ÷ ebx => eax(Q), edx(R)
mov C1, eax      ; C1 -> DW, eax -> Q
```

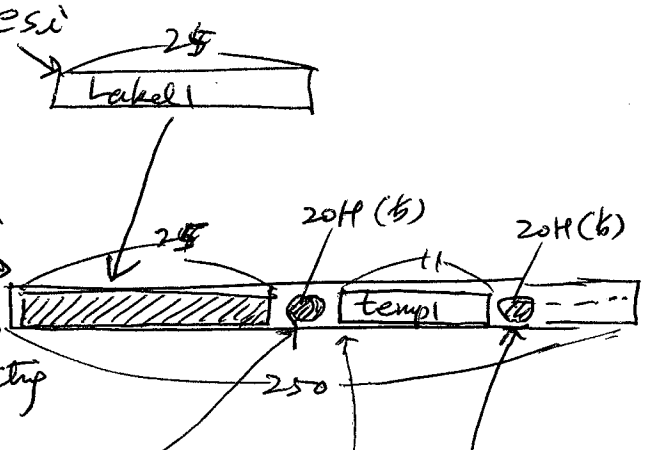
String catenation

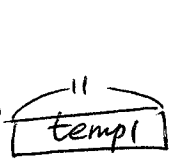
```
Label1 BYTE "Fahrenheit temperatures:", 0
temp1  BYTE 11 dup(?), 0
outstring BYTE 250 dup(?), 0
        :
        lea esi, Label1 ;
        lea edi, outstring ;
        cld ; (→)
        mov ecx, 24
        rep movsb
        mov outstring+25, 20H ;
        :
        lea esi, temp1 ;
        lea edi, outstring+25+1 ;
        cld ; (→)
        mov ecx, 11
        rep movsb
        mov outstring+25+1+11, 20H ;
        :
        output outLabel, outstring ;
```

loop 24

dtoa temp1, FI

loop 11





edi