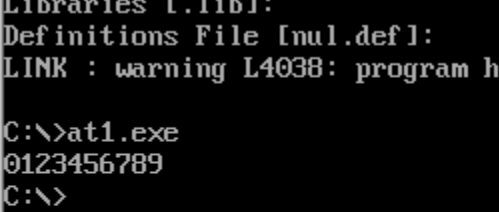Task 1:
```
.model small
.stack
.data
.code
mov al,48
mov bl,58
l2:
cmp al,bl
jne l1
jmp exit

l1:
mov dl,al
mov ah,02
int 21h
inc al
jmp l2
exit:
mov ah,4ch
int 21h
end
```

```
Libraries [.lib]:
Definitions File [nul.def]:
LINK : warning L4038: program h

C:\>at1.exe
0123456789
C:\>
```

Task 2:
```
.model small
.stack
.data
.code
mov al,57
mov bl,48
l2:

cmp al,bl
jne l1
jmp exit
```

```
l1:
mov dl,al
mov ah,02
int 21h
dec al
jmp l2
exit:
mov ah,4ch
int 21h
end
```

```
C:\>
C:\>at2.exe
987654321
C:\>_
```
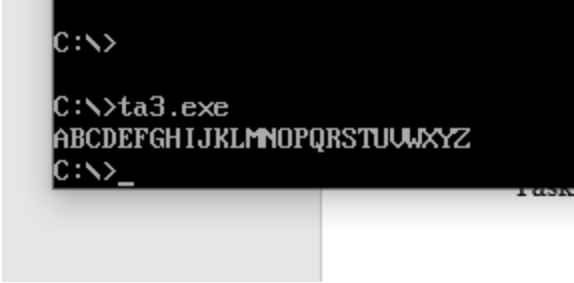
Task 3:
.model small
.stack
.data

Task 3:
```
.model small
.stack
.data
.code
mov al,65
mov bl,91
l2:
cmp al,bl
jne l1
jmp exit
```

```
l1:
mov dl,al
mov ah,02
int 21h
inc al
jmp l2
exit:
mov ah,4ch
int 21h
end
```

```
C:\>

C:\>ta3.exe
ABCDEFGHIJKLMNOPQRSTUVWXYZ
C:\>_
```

Task 4:
.model small
.stack
.data
.code
mov al,90
mov bl,64
l2:

cmp al,bl
jne l1
jmp exit

l1:
mov dl,al
mov ah,02
int 21h
dec al
jmp l2
exit:
mov ah,4ch
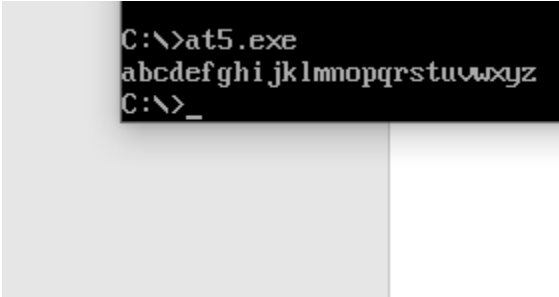int 21h
end

```
C:\>at4.exe
ZYXWVUTSRQPONMLKJIHGFEDCBA
C:\>_
```

Task 5:
.model small
.stack
.data
.code

```asm
mov al,97
mov bl,123
l2:
cmp al,bl
jne l1
jmp exit

l1:
mov dl,al
mov ah,02
int 21h
inc al
jmp l2
exit:
mov ah,4ch
int 21h
end
```
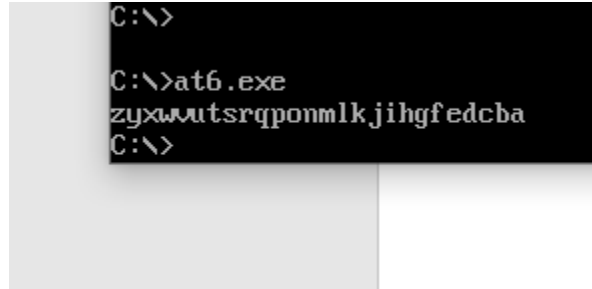


```
C:\>at5.exe
abcdefghijklmnopqrstuvwxyz
C:\>_
```

Task 6:
```asm
.model small
.stack
.data
.code
mov al,122
mov bl,96
l2:
cmp al,bl
jne l1
jmp exit

l1:
mov dl,al
mov ah,02
int 21h
dec al
jmp l2
exit:
mov ah,4ch
```

int 21h
end

Task 7:
.model small
.stack
.data
.code
mov ah,01
int 21h
mov bl,al
mov ah,01
int 21h
mov bh,al
mov ah,01
int 21h
mov cl,al
mov ah,01
int 21h
mov ch,al
cmp bl,bh
jb l1
mov dl,'F'
mov ah,02
int 21h
jmp exit
l1:
cmp cl,ch
ja true
true:

mov dl,'T'
mov ah,02
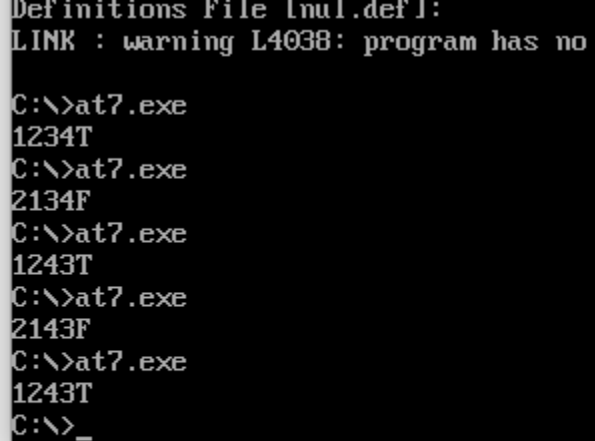int 21h

exit:
mov ah,4ch
int 21h

end

```
Definitions File [nul.def]:
LINK : warning L4038: program has no

C:\>at7.exe
1234T
C:\>at7.exe
2134F
C:\>at7.exe
1243T
C:\>at7.exe
2143F
C:\>at7.exe
1243T
C:\>_
```

TASK 8
.model small
.stack
.data
.code
mov ah,01
int 21h

mov bl,al
mov ah,01
int 21h

mov bh,al
mov ah,01
int 21h

mov cl,al
mov ah,01
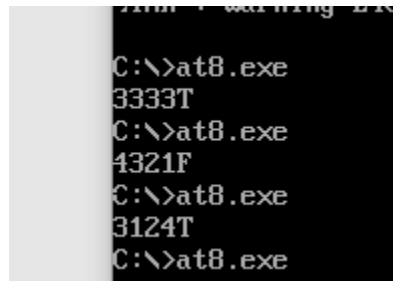int 21h

mov ch,al
cmp cl,bh
jbe l1
l1:
cmp bl,ch
jbe true
jmp false

```
false :

mov dl,'F'
mov ah,02
int 21h
jmp exit
true:

mov dl,'T'
mov ah,02
int 21h

exit:
mov ah,4ch
int 21h
end
```


TASK 9
```
.model small
.stack
.data
digitcount db 0
anothercounter db 0
enterednumber dw 0
temp1 dw 0
.code
mov ax,@data
mov ds,ax
input:
mov ah,01
int 21h
cmp al,13
je stopit
sub al,48
mov ah,0
mov temp1,ax
mov ax,0
mov ax,enterednumber
mov bl,10
```

```asm
        mul bl
        add ax,temp1
        mov enterednumber,ax
        inc digitcount
        jmp input

stopit:
        mov al,digitcount
        mov anothercounter,al

break:
        cmp digitcount,0
        je displayit
        dec digitcount

        mov ax,enterednumber
        mov bl,10
        div bl

        mov dx,0
        mov dl,ah
        push dx
        mov ah,0
        mov enterednumber,ax
        jmp break
displayit:
        cmp anothercounter,0
        je exit
        dec anothercounter
        pop dx
        add dl,48
        mov ah,02
        int 21h
        jmp displayit

exit:
        mov ah,04ch
        int 21h
        end
```

```
C:\>

C:\>at9.exe
453
453
C:\>
```