

gcc on text.c file (left side) [gcc -S -O0 text.c] gives following assembler code (right side):

```
1 #include <stdio.h>
2
3 int main(int argc, char *argv[])
4 {
5     int t;
6
7     if (argc < 2) {
8         fprintf(stderr, "Not enough
9             arguments!\n");
10        return 1;
11    }
12
13    t = atoi(argv[1]);
14    printf("%d^2 = %d\n", t, t * t);
15
16    return 0;
17 }
```

```
1 .file "test.c"
2 .section .rodata.str1.1,"aMS",
3     @progbits,1
4 .LC0:
5     .string "Not enough arguments!\n"
6 .LC1:
7     .string "%d^2 = %d\n"
8 .text
9 .globl main
10 .type main, @function
11 main:
12 .LFB0:
13     .cfi_startproc
14     subq $8, %rsp
15     .cfi_def_cfa_offset 16
16     decl %edi
17     jg .L2
18     movq stderr(%rip), %rsi
19     movl $.LC0, %edi
20     call fputs
21     movl $1, %eax
22     jmp .L3
23 .L2:
24     movq 8(%rsi), %rdi
25     xorl %eax, %eax
26     call atoi
27     movl %eax, %edx
28     movl %eax, %esi
29     movl $.LC1, %edi
30     imull %eax, %edx
31     xorl %eax, %eax
32     call printf
33     xorl %eax, %eax
34 .L3:
35     popq %rdx
36     ret
37 .cfi_endproc
38 .LFE0:
39     .size main, .-main
40     .ident "GCC: (Debian 4.4.5-8) 4
41         @progbits
42     .section .note.GNU-stack,"",
43         @progbits
```