

vsworkshop (C lab) [Running] - Oracle VirtualBox

File Machine View Input Devices Help

Activities Terminal

Mon 08:09

vsduser@vsduser-VirtualBox: ~

File Edit View Search Terminal Help

```
vsduser@vsduser-VirtualBox:~$ cd
vsduser@vsduser-VirtualBox:~$ gedit sum1ton.c
vsduser@vsduser-VirtualBox:~$ gcc sum1ton.c
vsduser@vsduser-VirtualBox:~$ ./a.out
sum of the numbers from 1 to 5
is 15
vsduser@vsduser-VirtualBox:~$
```

Auto capture keyboard ...



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vsduser@vsduser-VirtualBox: ~ x

vsduser@vsduser-VirtualBox: ~ x

vsduser@vsduser-VirtualBox: ~ x

vsduser@vsduser-VirtualBox: ~ x

```
vsduser@vsduser-VirtualBox:~$ cat sumiton.c
#include <stdio.h>
```

```
int main() {
    int i ,sum = 0,n=100;
    for (i=1; i<=n; ++i) {
        sum += i;
    }
    printf("sum of the numbers from 1 to %d is %d\n", n ,sum);
}
```

```
vsduser@vsduser-VirtualBox:~$ riscv64-unknown-elf-gcc -O1 -mabi=lp64 -march=rv64i -o sumiton.o sumiton.c
```

```
vsduser@vsduser-VirtualBox:~$ ls -ltr sumiton.o
```

```
-rwxrwxr-x 1 vsduser vsduser 167512 Jan  6 11:42 sumiton.o
```

```
vsduser@vsduser-VirtualBox:~$
```

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vsduser@vsduser-VirtualBox: ~

```
00000000000010184 <main>:
10184:    ff010113          addi    sp,sp,-32
10188:    00113423          sd      ra,8(sp)
1018c:    06400793          li      a5,100
10190:    fff7879b          addiw   a5,a5,-32
10194:    fe079ee3          bnez    a5,10190
10198:    00001637          lui     a2,0x1
1019c:    3ba60613          addi    a2,a2,9
101a0:    06400593          li      a1,100
101a4:    00021537          lui     a0,0x21
101a8:    19050513          addi    a0,a0,40
101ac:    26c009ef          jal     ra,101af
101b0:    00000513          li      a0,0
101b4:    00813083          ld      ra,8(sp)
101b8:    01010113          addi    sp,sp,16
101bc:    00008067          ret
```

```
000000000000101c0 <atexit>:
```

```

101c0: 00050593      mv    a1,a0
101c4: 00000693      li    a3,0
101c8: 00000613      li    a2,0
101cc: 00000513      li    a0,0
101d0: 4390206f      j      12e08 <

```

```
000000000000101d4 <exit>:
```

```

101d4:      ff010113      addi    sp,sp,-10
101d8:      00000593      li      a1,0
101dc:      00813023      sd      s0,0(sp)
101e0:      00113423      sd      ra,8(sp)

```

101BC+4	=	65984
101C0-10184	=	60
3C÷4	=	15

15

Decimal ▼

$$17_8 = F_{16}$$

0000	0000	0000	0000	0000	0000	0000	0000
63				47			32
0000	0000	0000	0000	0000	0000	0000	1111
31				15			0

$\ln$	$\ln$	.	$\times$	(	)	$\ll$	$\gg$	$\acute{a}$		
C	D	E	F	$\div$	mod	ones	twos	$ x $	n	
8	9	A	B	$\times$	AND	NOT	$\sqrt{\phantom{x}}$	$x^y$	$x^{-1}$	
4	5	6	7	-	OR	C	log	$\log_2$	int	
0	1	2	3	+	XOR	=	fact	$x!$	frac	