

fact(x)

if (x <= 1)
: return 1

else
int y = x - 1;
return x * fact(y);

f(3)

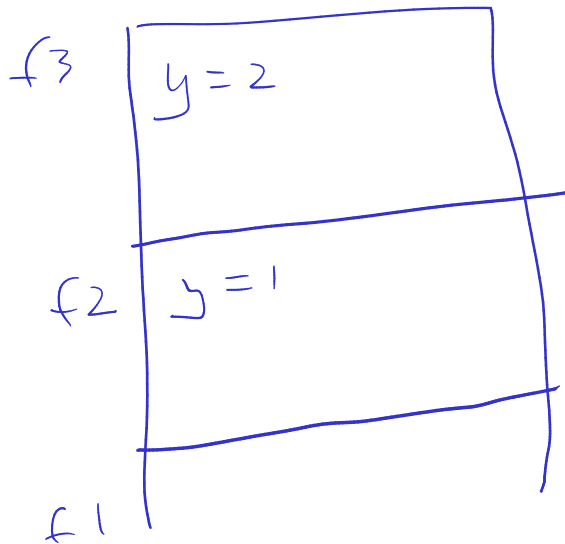
f(2)

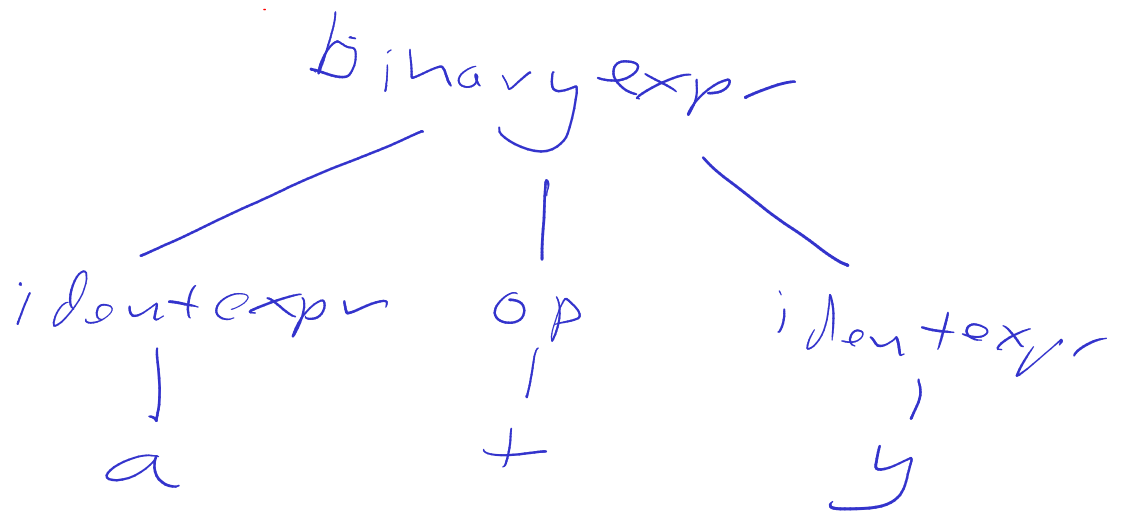
f(1)

f3()

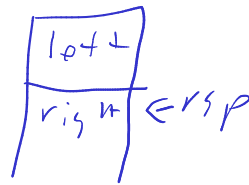
f2()

f1()



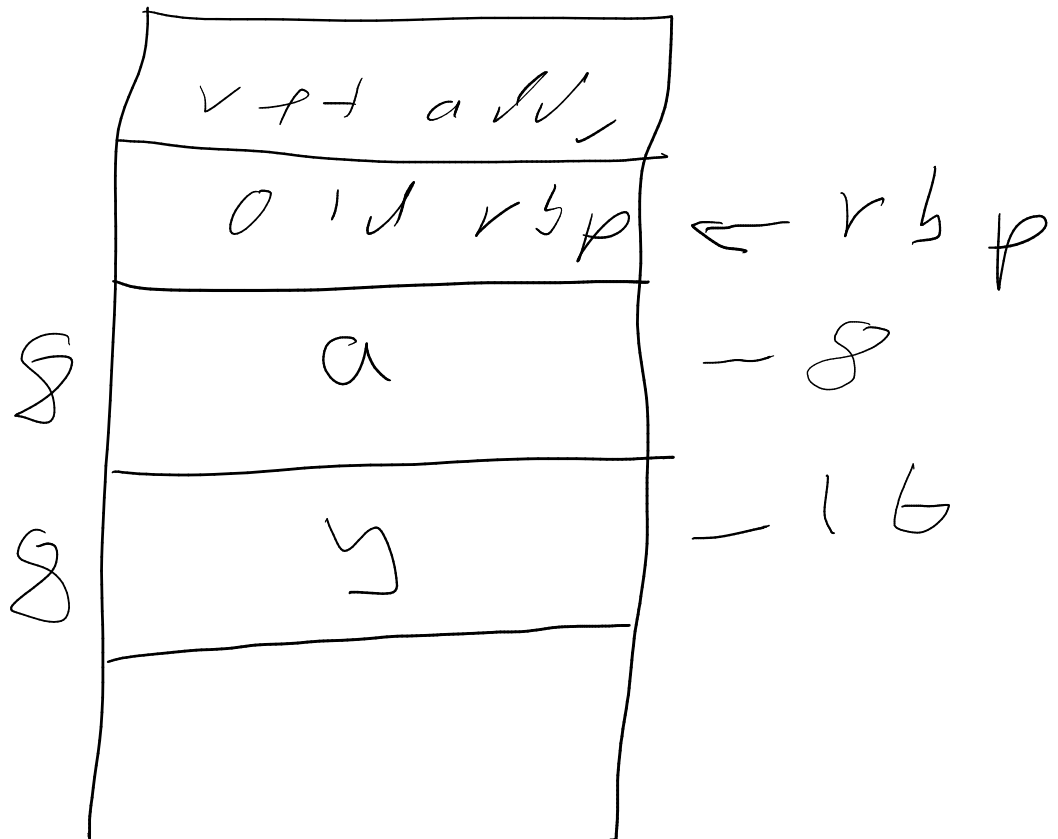
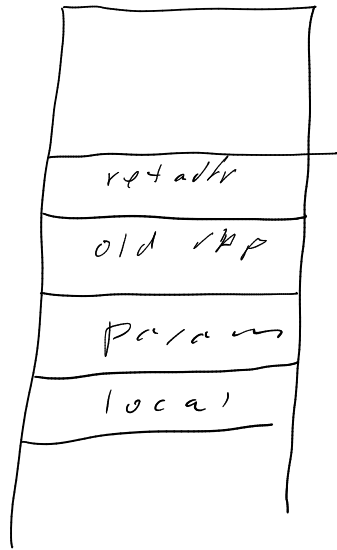


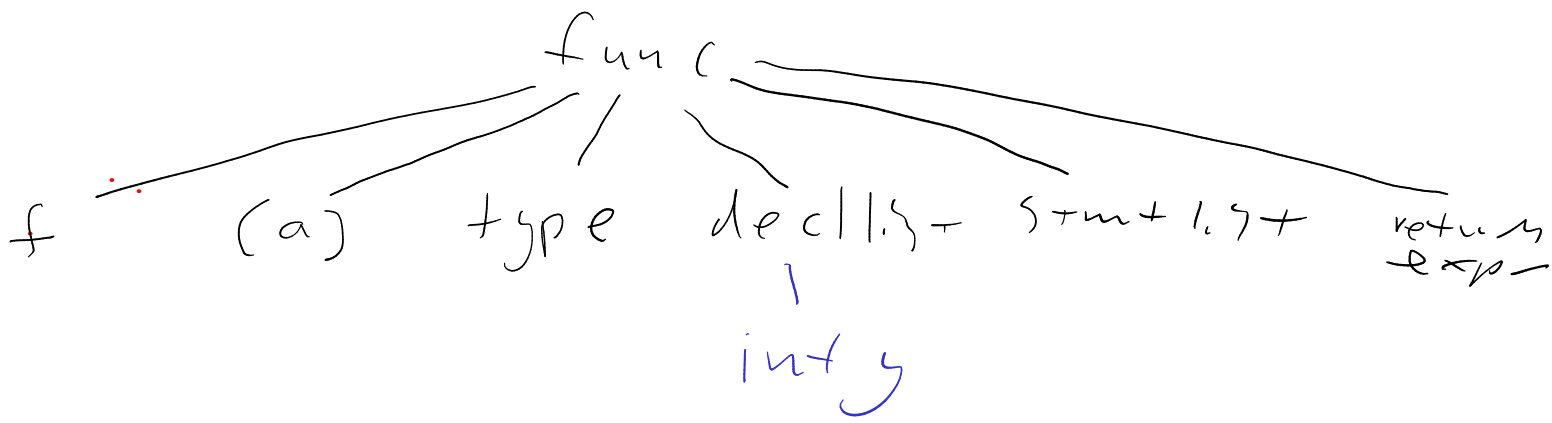
mov -8(%rbp) %rax
 push %rax



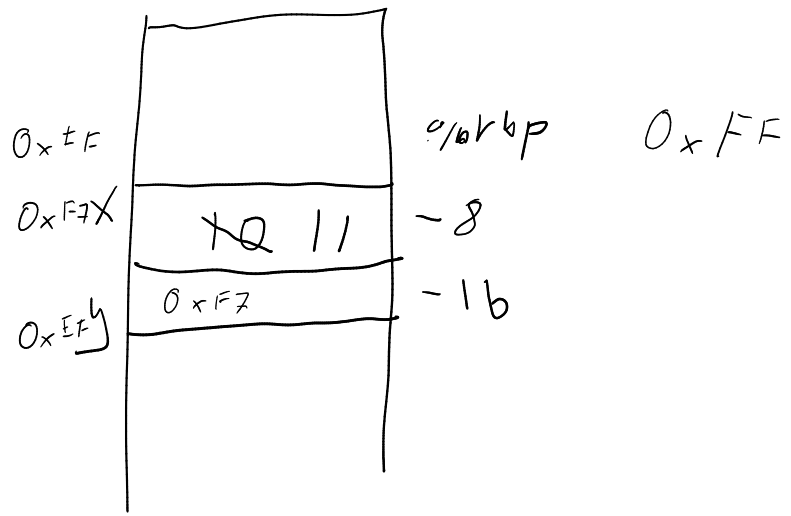
mov -16(%rbp) %rax
 push %rax

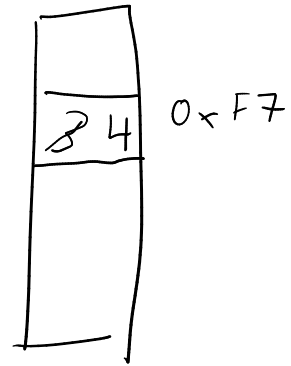
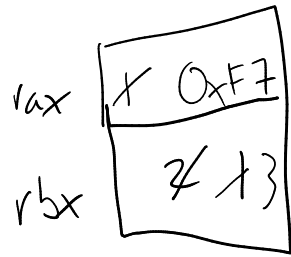
pop %rbx
 pop %rax
 add %rbx %rax
 push %rax





symbol	offset a, bp
a	-8
y	-16





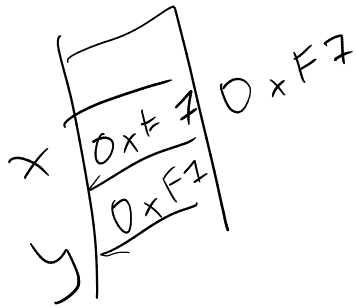
```

mov $1, %rax
mov $2, %rbx
mov %rax, %rbx
mov 0xF7, %rax
mov (%rax), %rbx
mov $4, (%rax)

```

$$y = \&x$$

$$x = *y$$



mov (a/0 r**y**bx), r**x**rax

$$x = y$$

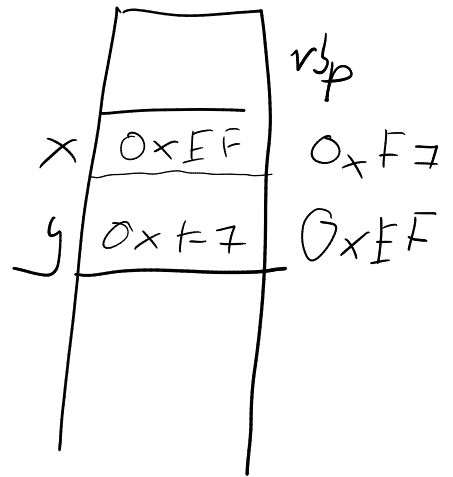
mov r**y**bx, r**x**rax

$$x = 10$$

$$y = \&x$$

$$x = y$$

$$x = \&y$$



a/0 r**y**bx

mov r**x**rax

mov r**y**bp, r**x**rax } &y → r**x**ax
 sub -16, r**x**ax }
 mov r**x**ax, -8(r**y**bp)

		0x FF
x	1	0x F7
y	2	0x EF
z	0x EF	0x E7