汇编语言　作业3

3.3. movb $0xF, (%ebx)　%ebx不能作为地址寄存器
movl %rax, (%rsp)　指令后缀与寄存器不匹配
movw (%rax), 4(%rsp)　源操作数和目的操作数不能都为内存引用
~~movb %al, %sl~~　没有%sl寄存器
movb %al, %sl
movq %rax, $0x123　不能用立即数作为目的操作数
movl %eax, %rdx　目的操作数的位数不匹配
movb %si, 8(%rbp)　指令后缀与寄存器不匹配

3.5.
```
void decode1(long *xp, long *yp, long *zp)
{
    long x = *xp;
    long y = *yp;
    long z = *zp;
    *yp = x;
    *zp = y;
    *xp = z;
}
```

3.7.
```
long t = 5*x + 2*y + 8*z;
```

3.10.
```
long arith2(long x, long y, long z)
{
    long t1 = x | y;
    long t2 = t1 >> 3;
    long t3 = ~t2;
    long t4 = z - t3;
}
```

3.15 A. 400 3fa: 74 02 je 400 3fe
400 fc: ff d0 call q *%rax
B. 400 42f: 74 f4 je 400 425
400 431: 5d pop %rbq
C. 400 543: 77 02 ja 400 547
400 545: 5d pop %rbq
D. 400 5e8: e9 73 ff ff ff jmpq 400 560
400 5ed: 90 nop

3.18. long test (long x, long y, long z) {
long val = x + y + z;
if (x < -3) {
if (y < z)
val = x * y;
else
val = y * z;
}else if (x > 2)
val = x * z;
return val;
}

3.21 long test (long x, long y) {
long val = 8 * x;
if (y > 0) {
if (x < y)
val = y - x;
else
val = x & y;
}else if (y <= -2)
val = x + y;
return val; }

3.60. A. x: %rdi n: %rsi %cl

result: %rax mask: %rdx

B. result = 0

mask = 1

C. mask != 0

E. result = result | (x & mask)

D. mask = mask << (n & 0x3F)

F. long loop(long x, long n)

{

long result = 0;

long mask;

for(mask = 1; mask != 0; mask = mask << (n & 0x3F))

result = result | (x & mask);

return result;

}

3.61. long cread(long *xp){

long t = 0;

long *p = xp ? xp : &t;

return *p;

}