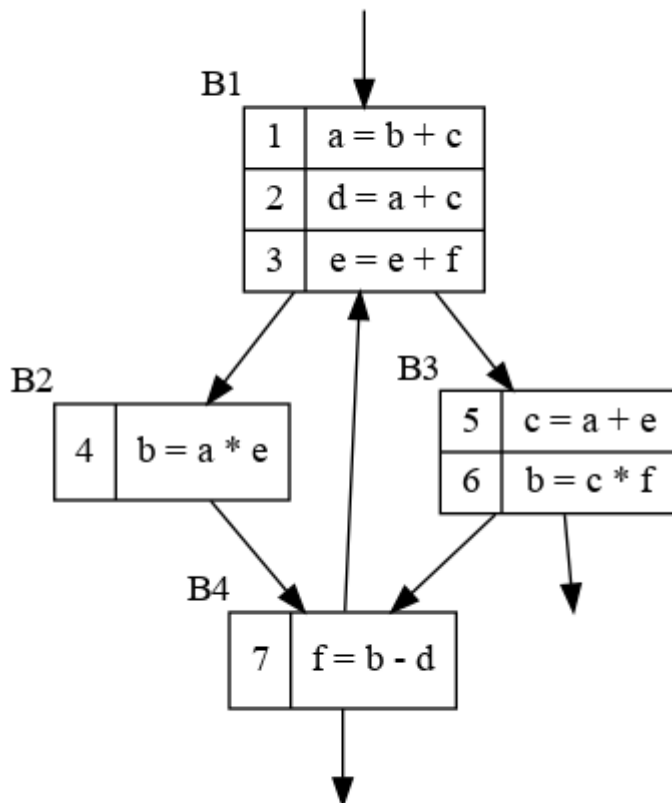


作业 16

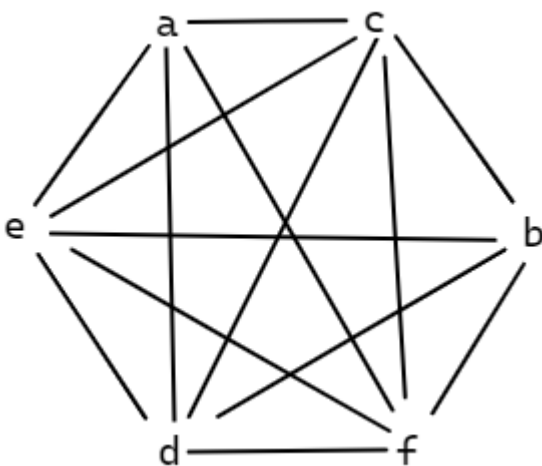
2020K8009929017 侯昱帆

练习 8.4.1: 为流图中的程序计算

1. 寄存器冲突图
2. 如果要避免寄存器溢出, 至少需要多少寄存器? 为什么?



答:



要避免寄存器溢出, 至少需要 5 个 寄存器

练习 8.4.2：为下面的每个 C 语言赋值语句生成三地址代码

1. $x = a - b + c * e;$
2. $a[b[i]] = b[c[i]];$
3. $*p++ = ++*q$

答：

```
t1 = c * e
t2 = a
t3 = t2 - b
x = t3 + t1
```

```
t1 = i * sizeof(*c)
t2 = c[t1]
t3 = t2 * sizeof(*b)
t4 = b[t3]
t5 = i * sizeof(*b)
t6 = b[t5]
t7 = t6 * sizeof(*a)
a[t7] = t4
```

```
t1 = *q
t2 = t1 + 1
*q = t2
*p = t2
p = p + sizeof(*p)
```