

9.3

(1)

$$\begin{aligned}
B_1 : \quad & \text{gen}_{B_1} = \{d_1, d_2\} \\
& \text{kill}_{B_1} = \{d_8, d_{10}, d_{11}\} \\
B_2 : \quad & \text{gen}_{B_2} = \{d_3, d_4\} \\
& \text{kill}_{B_2} = \{d_5, d_6\} \\
B_3 : \quad & \text{gen}_{B_3} = \{d_5\} \\
& \text{kill}_{B_3} = \{d_4, d_6\} \\
B_4 : \quad & \text{gen}_{B_4} = \{d_6, d_7\} \\
& \text{kill}_{B_4} = \{d_4, d_5, d_9\} \\
B_5 : \quad & \text{gen}_{B_5} = \{d_8, d_9\} \\
& \text{kill}_{B_5} = \{d_2, d_7, d_{11}\} \\
B_6 : \quad & \text{gen}_{B_6} = \{d_{10}, d_{11}\} \\
& \text{kill}_{B_6} = \{d_1, d_2, d_8\}
\end{aligned}$$

块	$OUT[B]^0$	$IN[B]^1$	$OUT[B]^1$	$IN[B]^2$	$OUT[B]^2$
B_1	0000 0000 000	0000 0000 000	1100 0000 000	0000 0000 000	1100 0000 000
B_2	0000 0000 000	1100 0000 000	1111 0000 000	1111 1001 100	1111 0001 100
B_3	0000 0000 000	1111 0000 000	1110 1000 000	1111 0111 100	1110 1000 100
B_4	0000 0000 000	1110 1000 000	1110 0110 000	1110 0000 100	1110 0110 000
B_5	0000 0000 000	1111 1000 000	1011 1001 100	1111 1001 100	1011 1001 100
B_6	0000 0000 000	1011 1001 100	0011 1000 111	1011 1001 100	0011 1000 111
$EXIT$	0000 0000 000	0011 1000 111	0011 1000 111	0011 1000 111	0011 1000 111

(2)

$$\begin{aligned}
B_1 : \quad & e_gen_{B_1} = \{1, 2\} \\
& e_kill_{B_1} = \{\} \\
B_2 : \quad & e_gen_{B_2} = \{a + b, c - a\} \\
& e_kill_{B_2} = \{\} \\
B_3 : \quad & e_gen_{B_3} = \{b + d\} \\
& e_kill_{B_3} = \{\} \\
B_4 : \quad & e_gen_{B_4} = \{a + b, e + 1\} \\
& e_kill_{B_4} = \{b + d\} \\
B_5 : \quad & e_gen_{B_5} = \{a + b, c - a\} \\
& e_kill_{B_5} = \{a + b, b + d\} \\
B_6 : \quad & e_gen_{B_6} = \{b * d, a - d\} \\
& e_kill_{B_6} = \{a + b, c - a, b + d\}
\end{aligned}$$

块	$IN[B]$	$OUT[B]$
B_1	$\{\}$	$\{1, 2\}$
B_2	$\{1, 2\}$	$\{a + b, c - a, 1, 2\}$
B_3	$\{e + 1, a + b, c - a, 1, 2\}$	$\{e + 1, b + d, a + b, c - a, 1, 2\}$
B_4	$\{e + 1, b + d, a + b, c - a, 1, 2\}$	$\{e + 1, a + b, c - a, 1, 2\}$
B_5	$\{e + 1, b + d, a + b, c - a, 1, 2\}$	$\{e + 1, a + b, c - a, 1, 2\}$
B_6	$\{e + 1, a + b, c - a, 1, 2\}$	$\{e + 1, a + b, c - a, 1, 2\}$

(3)

$$\begin{aligned}
B_1 : \quad & use_{B_1} = \{\} \\
& def_{B_1} = \{a, b\} \\
B_2 : \quad & use_{B_2} = \{a, b\} \\
& def_{B_2} = \{c, d\} \\
B_3 : \quad & use_{B_3} = \{b, d\} \\
& def_{B_3} = \{d\} \\
B_4 : \quad & use_{B_4} = \{a, b, e\} \\
& def_{B_4} = \{d, e\} \\
B_5 : \quad & use_{B_5} = \{a, b, c\} \\
& def_{B_5} = \{b, e\} \\
B_6 : \quad & use_{B_6} = \{b, d\} \\
& def_{B_6} = \{a, b\}
\end{aligned}$$

块	$IN[B]$	$OUT[B]$
B_1	$\{\}$	$\{a, b, e\}$
B_2	$\{a, b, e\}$	$\{a, b, c, d, e\}$
B_3	$\{a, b, c, d, e\}$	$\{a, b, c, d, e\}$
B_4	$\{a, b, c, e\}$	$\{a, b, c, d, e\}$
B_5	$\{a, b, c, d\}$	$\{a, b, d, e\}$
B_6	$\{b, d\}$	$\{\}$

9.22

```
1  for (i = 0; i < 20; i++)
2  {
3      int tmp = 10 * i;
4      int last = 0;
5      for (j = 0; j < 10; j++)
6      {
7          last += tmp;
8          r[i][j] = last;
9      }
10 }
```