

|    |         | IN                    | OUT |
|----|---------|-----------------------|-----|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A]) |     |
| 1  | ifeq 22 |                       |     |
| 4  | iload 2 |                       |     |
| 5  | ifeq 12 |                       |     |
| 8  | aload 3 |                       |     |
| 9  | goto 14 |                       |     |
| 12 | aload 4 |                       |     |

|    |         | IN                     | OUT                    |
|----|---------|------------------------|------------------------|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])  | ([b], [E,b,b,C1,C2,A]) |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A]) |                        |
| 4  | iload 2 |                        |                        |
| 5  | ifeq 12 |                        |                        |
| 8  | aload 3 |                        |                        |
| 9  | goto 14 |                        |                        |
| 12 | aload 4 |                        |                        |

|    |         | IN                     | OUT                    |
|----|---------|------------------------|------------------------|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])  | ([b], [E,b,b,C1,C2,A]) |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A]) | ([], [E,b,b,C1,C2,A])  |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])  |                        |
| 5  | ifeq 12 |                        |                        |
| 8  | aload 3 |                        |                        |
| 9  | goto 14 |                        |                        |
| 12 | aload 4 |                        |                        |

|    |          | IN                    | OUT |
|----|----------|-----------------------|-----|
| 14 | astore 3 |                       |     |
| 15 | aload 5  |                       |     |
| 17 | astore 4 |                       |     |
| 19 | goto 0   |                       |     |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A]) |     |
| 23 | areturn  |                       |     |

|    |         | IN                     | OUT                    |
|----|---------|------------------------|------------------------|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])  | ([b], [E,b,b,C1,C2,A]) |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A]) | ([], [E,b,b,C1,C2,A])  |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])  |                        |
| 5  | ifeq 12 |                        |                        |
| 8  | aload 3 |                        |                        |
| 9  | goto 14 |                        |                        |
| 12 | aload 4 |                        |                        |

|    |         | IN                     | OUT                    |
|----|---------|------------------------|------------------------|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])  | ([b], [E,b,b,C1,C2,A]) |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A]) | ([], [E,b,b,C1,C2,A])  |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])  | ([b], [E,b,b,C1,C2,A]) |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A]) |                        |
| 8  | aload 3 |                        |                        |
| 9  | goto 14 |                        |                        |
| 12 | aload 4 |                        |                        |

|    |         | IN                     | OUT                    |
|----|---------|------------------------|------------------------|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])  | ([b], [E,b,b,C1,C2,A]) |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A]) | ([], [E,b,b,C1,C2,A])  |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])  | ([b], [E,b,b,C1,C2,A]) |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A]) | ([], [E,b,b,C1,C2,A])  |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])  |                        |
| 9  | goto 14 |                        |                        |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])  |                        |

|    |         | IN                      | OUT                     |
|----|---------|-------------------------|-------------------------|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])   | ([b], [E,b,b,C1,C2,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])  | ([], [E,b,b,C1,C2,A])   |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])   | ([b], [E,b,b,C1,C2,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])  | ([], [E,b,b,C1,C2,A])   |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])   | ([C1], [E,b,b,C1,C2,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A]) |                         |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])   |                         |

|    |         | IN                      | OUT                     |
|----|---------|-------------------------|-------------------------|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])   | ([b], [E,b,b,C1,C2,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])  | ([], [E,b,b,C1,C2,A])   |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])   | ([b], [E,b,b,C1,C2,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])  | ([], [E,b,b,C1,C2,A])   |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])   | ([C1], [E,b,b,C1,C2,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A]) | ([C1], [E,b,b,C1,C2,A]) |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])   |                         |

|    |          | IN                      | OUT |
|----|----------|-------------------------|-----|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A]) |     |
| 15 | aload 5  |                         |     |
| 17 | astore 4 |                         |     |
| 19 | goto 0   |                         |     |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])   |     |
| 23 | areturn  |                         |     |

|    |         | IN                      | OUT                     |
|----|---------|-------------------------|-------------------------|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])   | ([b], [E,b,b,C1,C2,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])  | ([], [E,b,b,C1,C2,A])   |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])   | ([b], [E,b,b,C1,C2,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])  | ([], [E,b,b,C1,C2,A])   |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])   | ([C1], [E,b,b,C1,C2,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A]) | ([C1], [E,b,b,C1,C2,A]) |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])   |                         |

|    |         | IN                      | OUT                     |
|----|---------|-------------------------|-------------------------|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])   | ([b], [E,b,b,C1,C2,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])  | ([], [E,b,b,C1,C2,A])   |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])   | ([b], [E,b,b,C1,C2,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])  | ([], [E,b,b,C1,C2,A])   |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])   | ([C1], [E,b,b,C1,C2,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A]) | ([C1], [E,b,b,C1,C2,A]) |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])   | ([C2], [E,b,b,C1,C2,A]) |

|    |          | IN  | OUT |
|----|----------|---|-----|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A]) | -   |
| 15 | aload 5  |   |     |
| 17 | astore 4 |   |     |
| 19 | goto 0   |   |     |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])                             |     |
| 23 | areturn  |   |     |

|    |          | IN  | OUT                       |
|----|----------|---|---------------------------|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A]) | -<br>([], [E,b,b,B,C2,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])                              |                           |
| 17 | astore 4 |   |                           |
| 19 | goto 0   |   |                           |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])                             |                           |
| 23 | areturn  |   |                           |

|    |          | IN  | OUT                       |
|----|----------|---|---------------------------|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A]) | -<br>([], [E,b,b,B,C2,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])                              | ([A], [E,b,b,B,C2,A])     |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])                             |                           |
| 19 | goto 0   |   |                           |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])                             |                           |
| 23 | areturn  |   |                           |

|    |          | IN  | OUT                       |
|----|----------|---|---------------------------|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A]) | -<br>([], [E,b,b,B,C2,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])                              | ([A], [E,b,b,B,C2,A])     |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])                             | ([], [E,b,b,B,A,A])       |
| 19 | goto 0   | ([], [E,b,b,B,A,A])                               |                           |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])                             |                           |
| 23 | areturn  |   |                           |

|    |          | IN  | OUT                       |
|----|----------|---|---------------------------|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A]) | -<br>([], [E,b,b,B,C2,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])                              | ([A], [E,b,b,B,C2,A])     |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])                             | ([], [E,b,b,B,A,A])       |
| 19 | goto 0   | ([], [E,b,b,B,A,A])                               | ([], [E,b,b,B,A,A])       |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])                             |                           |
| 23 | areturn  |   |                           |

|    |         | IN                      | OUT                     |
|----|---------|-------------------------|-------------------------|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])   | ([b], [E,b,b,C1,C2,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])  | ([], [E,b,b,C1,C2,A])   |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])   | ([b], [E,b,b,C1,C2,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])  | ([], [E,b,b,C1,C2,A])   |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])   | ([C1], [E,b,b,C1,C2,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A]) | ([C1], [E,b,b,C1,C2,A]) |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])   | ([C2], [E,b,b,C1,C2,A]) |

|    |         | IN   | OUT                     |
|----|---------|--|-------------------------|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A]) | ([b], [E,b,b,C1,C2,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])                       | ([], [E,b,b,C1,C2,A])   |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])                        | ([b], [E,b,b,C1,C2,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])                       | ([], [E,b,b,C1,C2,A])   |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])                        | ([C1], [E,b,b,C1,C2,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])                      | ([C1], [E,b,b,C1,C2,A]) |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])                        | ([C2], [E,b,b,C1,C2,A]) |

|    |         | IN   | OUT  |
|----|---------|--|--|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A]) |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A]) | ([], [E,b,b,C1,C2,A])                          |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])                          | ([b], [E,b,b,C1,C2,A])                         |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])                         | ([], [E,b,b,C1,C2,A])                          |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])                          | ([C1], [E,b,b,C1,C2,A])                        |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])                        | ([C1], [E,b,b,C1,C2,A])                        |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])                          | ([C2], [E,b,b,C1,C2,A])                        |

|    |         | IN   | OUT  |
|----|---------|--|--|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A]) |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A]) | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   | ([b], [E,b,b,C1,C2,A])                         |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])                         | ([], [E,b,b,C1,C2,A])                          |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])                          | ([C1], [E,b,b,C1,C2,A])                        |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])                        | ([C1], [E,b,b,C1,C2,A])                        |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])                          | ([C2], [E,b,b,C1,C2,A])                        |

|    |          | IN  | OUT                       |
|----|----------|---|---------------------------|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A]) | -<br>([], [E,b,b,B,C2,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])                              | ([A], [E,b,b,B,C2,A])     |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])                             | ([], [E,b,b,B,A,A])       |
| 19 | goto 0   | ([], [E,b,b,B,A,A])                               | ([], [E,b,b,B,A,A])       |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])                             |                           |
| 23 | areturn  |   |                           |

|    |          | IN  | OUT                       |
|----|----------|---|---------------------------|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A]) | -<br>([], [E,b,b,B,C2,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])                              | ([A], [E,b,b,B,C2,A])     |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])                             | ([], [E,b,b,B,A,A])       |
| 19 | goto 0   | ([], [E,b,b,B,A,A])                               | ([], [E,b,b,B,A,A])       |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])      |                           |
| 23 | areturn  |   |                           |

|    |         | IN   | OUT  |
|----|---------|--|--|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A]) |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A]) | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   | ([b], [E,b,b,C1,C2,A])                         |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])                         | ([], [E,b,b,C1,C2,A])                          |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])                          | ([C1], [E,b,b,C1,C2,A])                        |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])                        | ([C1], [E,b,b,C1,C2,A])                        |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])                          | ([C2], [E,b,b,C1,C2,A])                        |

|    |         | IN   | OUT  |
|----|---------|--|--|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A]) |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A]) | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A]) |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A]) | ([], [E,b,b,C1,C2,A])                          |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])                          | ([C1], [E,b,b,C1,C2,A])                        |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])                        | ([C1], [E,b,b,C1,C2,A])                        |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])                          | ([C2], [E,b,b,C1,C2,A])                        |

|    |         | IN   | OUT  |
|----|---------|--|--|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A]) |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A]) | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A]) |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A]) | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   | ([C1], [E,b,b,C1,C2,A])                        |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])                        | ([C1], [E,b,b,C1,C2,A])                        |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])   | ([C2], [E,b,b,C1,C2,A])                        |

|    |         | IN  | OUT   |
|----|---------|---|---|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) | ([C1], [E,b,b,C1,C2,A])                         |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([C2], [E,b,b,C1,C2,A])                         |

|    |         | IN  | OUT   |
|----|---------|---|---|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([C2], [E,b,b,C1,C2,A])                         |

|    |          | IN  | OUT                       |
|----|----------|---|---------------------------|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A]) | -<br>([], [E,b,b,B,C2,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])                              | ([A], [E,b,b,B,C2,A])     |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])                             | ([], [E,b,b,B,A,A])       |
| 19 | goto 0   | ([], [E,b,b,B,A,A])                               | ([], [E,b,b,B,A,A])       |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])      |                           |
| 23 | areturn  |   |                           |

|    |          | IN  | OUT                       |
|----|----------|---|---------------------------|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) | -<br>([], [E,b,b,B,C2,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])  | ([A], [E,b,b,B,C2,A])     |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])   | ([], [E,b,b,B,A,A])       |
| 19 | goto 0   | ([], [E,b,b,B,A,A])   | ([], [E,b,b,B,A,A])       |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                              |                           |
| 23 | areturn  |   |                           |

|    |         | IN  | OUT   |
|----|---------|---|---|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([C2], [E,b,b,C1,C2,A])                         |

|    |         | IN  | OUT   |
|----|---------|---|---|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([C2], [E,b,b,C1,C2,A])<br>([A], [E,b,b,B,A,A]) |

|    |          | IN  | OUT                       |
|----|----------|---|---------------------------|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) | -<br>([], [E,b,b,B,C2,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])  | ([A], [E,b,b,B,C2,A])     |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])   | ([], [E,b,b,B,A,A])       |
| 19 | goto 0   | ([], [E,b,b,B,A,A])   | ([], [E,b,b,B,A,A])       |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                              |                           |
| 23 | areturn  |   |                           |

|    |          | IN  | OUT                       |
|----|----------|---|---------------------------|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,B,A,A]) | -<br>([], [E,b,b,B,C2,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])  | ([A], [E,b,b,B,C2,A])     |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])   | ([], [E,b,b,B,A,A])       |
| 19 | goto 0   | ([], [E,b,b,B,A,A])   | ([], [E,b,b,B,A,A])       |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])  |                           |
| 23 | areturn  |   |                           |

|    |          | IN  | OUT   |
|----|----------|---|---|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,B,A,A]) | -<br>([], [E,b,b,B,C2,A])<br>-<br>([], [E,b,b,A,A,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])<br>([], [E,b,b,A,A,A])   | ([A], [E,b,b,B,C2,A])                                 |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])   | ([], [E,b,b,B,A,A])                                   |
| 19 | goto 0   | ([], [E,b,b,B,A,A])   | ([], [E,b,b,B,A,A])                                   |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])  |   |
| 23 | areturn  |   |   |

|    |          | IN  | OUT   |
|----|----------|---|---|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,B,A,A]) | -<br>([], [E,b,b,B,C2,A])<br>-<br>([], [E,b,b,A,A,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])<br>([], [E,b,b,A,A,A])   | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])         |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])   | ([], [E,b,b,B,A,A])                                   |
| 19 | goto 0   | ([], [E,b,b,B,A,A])   | ([], [E,b,b,B,A,A])                                   |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])  |   |
| 23 | areturn  |   |   |

|    |          | IN  | OUT   |
|----|----------|---|---|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,B,A,A]) | -<br>([], [E,b,b,B,C2,A])<br>-<br>([], [E,b,b,A,A,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])<br>([], [E,b,b,A,A,A])   | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])         |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])            |
| 19 | goto 0   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])  | ([], [E,b,b,B,A,A])                                   |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])  |   |
| 23 | areturn  |   |   |

|    |          | IN  | OUT   |
|----|----------|---|---|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,B,A,A]) | -<br>([], [E,b,b,B,C2,A])<br>-<br>([], [E,b,b,A,A,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])<br>([], [E,b,b,A,A,A])   | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])         |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])            |
| 19 | goto 0   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])  | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])            |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])  |   |
| 23 | areturn  |   |   |

|    |         | IN  | OUT   |
|----|---------|---|---|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    | ([C2], [E,b,b,C1,C2,A])<br>([A], [E,b,b,B,A,A]) |

|    |         | IN  | OUT   |
|----|---------|---|---|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A]) | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])                      | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                        | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])                      | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])    |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                        | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                     | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A]) |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                        | ([C2], [E,b,b,C1,C2,A])<br>([A], [E,b,b,B,A,A]) |

|    |         | IN   | OUT  |
|----|---------|--|--|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A]) |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A]) | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                           |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                           | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])                         |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])                         | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                           |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                           | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                        |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                        | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                        |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                           | ([C2], [E,b,b,C1,C2,A])<br>([A], [E,b,b,B,A,A])                        |

|    |         | IN   | OUT  |
|----|---------|--|--|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A]) |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A]) | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])                         |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])                         | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                           |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                           | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                        |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                        | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                        |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                           | ([C2], [E,b,b,C1,C2,A])<br>([A], [E,b,b,B,A,A])                        |

|    |          | IN  | OUT   |
|----|----------|---|---|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,B,A,A]) | -<br>([], [E,b,b,B,C2,A])<br>-<br>([], [E,b,b,A,A,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])<br>([], [E,b,b,A,A,A])   | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])         |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])            |
| 19 | goto 0   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])  | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])            |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])  |   |
| 23 | areturn  |   |   |

|    |          | IN  | OUT   |
|----|----------|---|---|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,B,A,A]) | -<br>([], [E,b,b,B,C2,A])<br>-<br>([], [E,b,b,A,A,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])<br>([], [E,b,b,A,A,A])   | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])         |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])            |
| 19 | goto 0   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])  | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])            |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])                               |   |
| 23 | areturn  |   |   |

|    |         | IN   | OUT  |
|----|---------|--|--|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A]) |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A]) | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])                         |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])                         | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                           |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                           | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                        |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                        | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                        |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                           | ([C2], [E,b,b,C1,C2,A])<br>([A], [E,b,b,B,A,A])                        |

|    |         | IN   | OUT  |
|----|---------|--|--|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A]) |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A]) | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A]) |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A]) | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                           |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                           | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                        |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                        | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                        |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                           | ([C2], [E,b,b,C1,C2,A])<br>([A], [E,b,b,B,A,A])                        |

|    |         | IN   | OUT  |
|----|---------|--|--|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A]) |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A]) | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A]) |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A]) | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                        |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                        | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                        |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])    | ([C2], [E,b,b,C1,C2,A])<br>([A], [E,b,b,B,A,A])                        |

|    |         | IN  | OUT   |
|----|---------|---|---|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])                         |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([C2], [E,b,b,C1,C2,A])<br>([A], [E,b,b,B,A,A])                         |

|    |         | IN  | OUT   |
|----|---------|---|---|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([C2], [E,b,b,C1,C2,A])<br>([A], [E,b,b,B,A,A])                         |

|    |          | IN  | OUT   |
|----|----------|---|---|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,B,A,A]) | -<br>([], [E,b,b,B,C2,A])<br>-<br>([], [E,b,b,A,A,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])<br>([], [E,b,b,A,A,A])   | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])         |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])            |
| 19 | goto 0   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])  | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])            |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])                               |   |
| 23 | areturn  |   |   |

|    |          | IN  | OUT   |
|----|----------|---|---|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) | -<br>([], [E,b,b,B,C2,A])<br>-<br>([], [E,b,b,A,A,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])<br>([], [E,b,b,A,A,A])   | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])         |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])            |
| 19 | goto 0   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])  | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])            |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])   |   |
| 23 | areturn  |   |   |

|    |         | IN  | OUT   |
|----|---------|---|---|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])                            | ([C2], [E,b,b,C1,C2,A])<br>([A], [E,b,b,B,A,A])                         |

|    |         | IN  | OUT   |
|----|---------|---|---|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([C2], [E,b,b,C1,C2,A])<br>([A], [E,b,b,B,A,A])                         |

|    |         | IN  | OUT   |
|----|---------|---|---|
| 0  | iload 1 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  |
| 1  | ifeq 22 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     |
| 4  | iload 2 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  |
| 5  | ifeq 12 | ([b], [E,b,b,C1,C2,A])<br>([b], [E,b,b,B,A,A])<br>([b], [E,b,b,A,A,A])  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     |
| 8  | aload 3 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) |
| 9  | goto 14 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) |
| 12 | aload 4 | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])     | ([C2], [E,b,b,C1,C2,A])<br>([A], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) |

|    |          | IN  | OUT   |
|----|----------|---|---|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) | -<br>([], [E,b,b,B,C2,A])<br>-<br>([], [E,b,b,A,A,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])<br>([], [E,b,b,A,A,A])   | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])         |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])            |
| 19 | goto 0   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])  | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])            |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])   |   |
| 23 | areturn  |   |   |

|    |          | IN  | OUT  |
|----|----------|---|--|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) | -<br>([], [E,b,b,B,C2,A])<br>-<br>([], [E,b,b,A,A,A])<br>([], [E,b,b,A,A,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])<br>([], [E,b,b,A,A,A])   | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])                                |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])                                   |
| 19 | goto 0   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])  | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])                                   |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])   |  |
| 23 | areturn  |   |  |

|    |          | IN  | OUT  |
|----|----------|---|--|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) | -<br>([], [E,b,b,B,C2,A])<br>-<br>([], [E,b,b,A,A,A])<br>([], [E,b,b,A,A,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])<br>([], [E,b,b,A,A,A])   | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])                                |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])                                   |
| 19 | goto 0   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])  | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])                                   |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])   | -<br>-<br>([A], [E,b,b,A,A,A])   |
| 23 | areturn  | ([A], [E,b,b,A,A,A])  |  |

|    |          | IN  | OUT  |
|----|----------|---|--|
| 14 | astore 3 | ([C1], [E,b,b,C1,C2,A])<br>([B], [E,b,b,C1,C2,A])<br>([B], [E,b,b,B,A,A])<br>([A], [E,b,b,B,A,A])<br>([A], [E,b,b,A,A,A]) | -<br>([], [E,b,b,B,C2,A])<br>-<br>([], [E,b,b,A,A,A])<br>([], [E,b,b,A,A,A]) |
| 15 | aload 5  | ([], [E,b,b,B,C2,A])<br>([], [E,b,b,A,A,A])   | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])                                |
| 17 | astore 4 | ([A], [E,b,b,B,C2,A])<br>([A], [E,b,b,A,A,A])   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])                                   |
| 19 | goto 0   | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])  | ([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])                                   |
| 22 | aload 3  | ([], [E,b,b,C1,C2,A])<br>([], [E,b,b,B,A,A])<br>([], [E,b,b,A,A,A])   | -<br>-<br>([A], [E,b,b,A,A,A])   |
| 23 | areturn  | ([A], [E,b,b,A,A,A])  | ([], [E,b,b,A,A,A])  |