3 IntSet objects (is1 is2 is3) have been created.

Enter choice: z read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1 has 0 items

is2 has 0 items

is3 has 0 items

Enter choice: m read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1 is empty

is2 is empty

is3 is empty

Enter choice: b read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 12 read.

is1 is subset of is2

Enter choice: u read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 31 read.

is3 has been unioned with is1

Enter choice: s read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 32 read.

is2 has been subtracted from is3

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: (empty)

is2: (empty)

is3: (empty)

Enter choice: r read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1 has been reset and is now empty

is2 has been reset and is now empty

is3 has been reset and is now empty

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 1 read.

Enter integer value 8 read.

8 added to is1

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 1 read.

Enter integer value 1 read.

1 added to is1

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 1 read.

Enter integer value 2 read.

2 added to is1

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 1 read.

Enter integer value 5 read.

5 added to is1

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 1 read.

Enter integer value 8 read.

8 not added to is1

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 1 read.

Enter integer value 0 read.

0 added to is1

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 1 read.

Enter integer value 7 read.

7 added to is1

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 1 read.

Enter integer value 4 read.

4 added to is1

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 1 read.

Enter integer value -1 read.

-1 added to is1

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 1 read.

Enter integer value 2 read.

2 not added to is1

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: (empty)

is3: (empty)

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 2 read.

Enter integer value 4 read.

4 added to is2

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 2 read.

Enter integer value 9 read.

9 added to is2

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 2 read.

Enter integer value 3 read.

3 added to is2

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 2 read.

Enter integer value 5 read.

5 added to is2

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 2 read.

Enter integer value 2 read.

2 added to is2

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 2 read.

Enter integer value 6 read.

6 added to is2

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 2 read.

Enter integer value 4 read.

4 not added to is2

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: 4 9 3 5 2 6

is3: (empty)

Enter choice: z read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1 has 8 items

is2 has 6 items

is3 has 0 items

Enter choice: c read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 1 read.

Enter integer value -1 read.

-1 is in is1

Enter choice: c read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 1 read.

Enter integer value 6 read.

6 is not in is1

Enter choice: c read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 2 read.

Enter integer value 4 read.

4 is in is2

Enter choice: b read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 12 read.

is1 is not subset of is2

Enter choice: b read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 21 read.

is2 is not subset of is1

Enter choice: u read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 32 read.

is3 has been unioned with is2

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: 4 9 3 5 2 6

is3: 4 9 3 5 2 6

Enter choice: k read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 3 read.

Enter integer value 3 read.

3 removed from is3

Enter choice: k read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 3 read.

Enter integer value 6 read.

6 removed from is3

Enter choice: k read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 3 read.

Enter integer value 9 read.

9 removed from is3

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: 4 9 3 5 2 6

is3: 4 5 2

Enter choice: b read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 31 read.

is3 is subset of is1

Enter choice: b read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 32 read.

is3 is subset of is2

Enter choice: b read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 33 read.

is3 is subset of itself

Enter choice: e read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 12 read.

is1 is not equal to is2

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: 4 9 3 5 2 6

is3: 4 5 2

Enter choice: i read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 32 read.

is3 has been intersected with is2

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: 4 9 3 5 2 6

is3: 4 5 2

Enter choice: u read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 32 read.

is3 has been unioned with is2

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: 4 9 3 5 2 6

is3: 4 5 2 9 3 6

Enter choice: e read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 32 read.

is3 is equal to is2

Enter choice: e read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 13 read.

is1 is not equal to is3

Enter choice: i read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 31 read.

is3 has been intersected with is1

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: 4 9 3 5 2 6

is3: 4 5 2

Enter choice: u read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 32 read.

is3 has been unioned with is2

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: 4 9 3 5 2 6

is3: 4 5 2 9 3 6

Enter choice: s read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 31 read.

is1 has been subtracted from is3

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: 4 9 3 5 2 6

is3: 9 3 6

Enter choice: b read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 32 read.

is3 is subset of is2

Enter choice: s read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 23 read.

is3 has been subtracted from is2

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: 4 5 2

is3: 9 3 6

Enter choice: k read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 3 read.

Enter integer value 6 read.

6 removed from is3

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: 4 5 2

is3: 9 3

Enter choice: u read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 31 read.

is3 has been unioned with is1

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: 4 5 2

is3: 9 3 8 1 2 5 0 7 4 -1

Enter choice: z read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1 has 8 items

is2 has 3 items

is3 has 10 items

Enter choice: b read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 13 read.

is1 is subset of is3

Enter choice: b read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 31 read.

is3 is not subset of is1

Enter choice: s read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 23 read.

is3 has been subtracted from is2

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: (empty)

is3: 9 3 8 1 2 5 0 7 4 -1

Enter choice: z read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1 has 8 items

is2 has 0 items

is3 has 10 items

Enter choice: u read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 23 read.

is2 has been unioned with is3

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: 9 3 8 1 2 5 0 7 4 -1

is3: 9 3 8 1 2 5 0 7 4 -1

Enter choice: s read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 21 read.

is1 has been subtracted from is2

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1

is2: 9 3

is3: 9 3 8 1 2 5 0 7 4 -1

Enter choice: u read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 12 read.

is1 has been unioned with is2

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1 9 3

is2: 9 3

is3: 9 3 8 1 2 5 0 7 4 -1

Enter choice: e read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 12 read.

is1 is not equal to is2

Enter choice: e read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 13 read.

is1 is equal to is3

Enter choice: e read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 23 read.

is2 is not equal to is3

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 1 read.

Enter integer value 11 read.

11 added to is1

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 1 read.

Enter integer value -6 read.

-6 added to is1

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 2 read.

Enter integer value -22 read.

-22 added to is2

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 2 read.

Enter integer value 222 read.

222 added to is2

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 3 read.

Enter integer value -6 read.

-6 added to is3

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 3 read.

Enter integer value -2 read.

-2 added to is3

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 3 read.

Enter integer value -4 read.

-4 added to is3

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 3 read.

Enter integer value -8 read.

-8 added to is3

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 3 read.

Enter integer value 33 read.

33 added to is3

Enter choice: a read.

Enter object # (1 = is1, 2 = is2, 3 = is3) 3 read.

Enter integer value 999 read.

999 added to is3

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1 9 3 11 -6

is2: 9 3 -22 222

is3: 9 3 8 1 2 5 0 7 4 -1 -6 -2 -4 -8 33 999

Enter choice: u read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 21 read.

is2 has been unioned with is1

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1 9 3 11 -6

is2: 9 3 -22 222 8 1 2 5 0 7 4 -1 11 -6

is3: 9 3 8 1 2 5 0 7 4 -1 -6 -2 -4 -8 33 999

Enter choice: i read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 13 read.

is1 has been intersected with is3

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1 9 3 -6

is2: 9 3 -22 222 8 1 2 5 0 7 4 -1 11 -6

is3: 9 3 8 1 2 5 0 7 4 -1 -6 -2 -4 -8 33 999

Enter choice: u read.

Enter object\_pair # (12 for is1.OP(is2), 32 for is3.OP(is2),...) 23 read.

is2 has been unioned with is3

Enter choice: d read.

Enter hybrid # (1 for is1, 23 for is2 and is3, 123 for is1, is2 and is3,...) 123 read.

is1: 8 1 2 5 0 7 4 -1 9 3 -6

is2: 9 3 -22 222 8 1 2 5 0 7 4 -1 11 -6 -2 -4 -8 33 999

is3: 9 3 8 1 2 5 0 7 4 -1 -6 -2 -4 -8 33 999

Enter choice: q read.

Quit option selected...bye

Press Enter or Return when ready...