

## RESULT

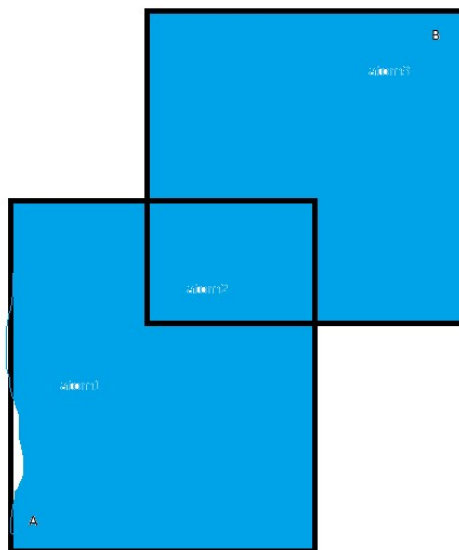
### UNION(A,B)

	A	B	Result
Atom1	1	0	1
Atom2	1	1	1
Atom3	0	1	1

```
function Union(v::AbstractArray)
    return any(v)
end

@assert(Union([false, false])==false)
@assert(Union([true, false])==true)
@assert(Union([true, true])==true)
@assert(Union([false, true])==true)
```

**NOTE:** Result is needed to know if an atom will be included in the boolean operation, or must be excluded

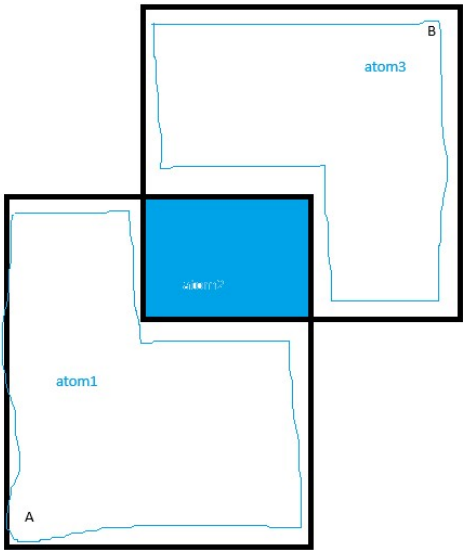


INTERSECTION(A,B)

	A	B	Result
Atom1	1	0	0
Atom2	1	1	1
Atom3	0	1	0

```
function Intersection(v::AbstractArray)
    return all(v)
end

@assert(Intersection ([false, false])==false)
@assert(Intersection ([true, false])==false)
@assert(Intersection ([true, true])==true)
@assert(Intersection ([false, true])==false)
```

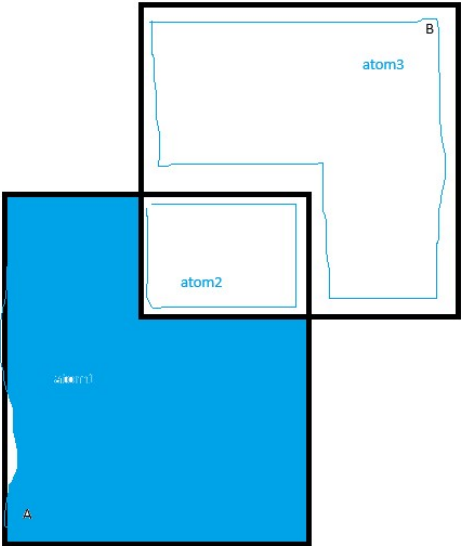


DIFFERENCE(A,B)

	A	B	Result
Atom1	1	0	1
Atom2	1	1	0
Atom3	0	1	0

```
function Difference(v::AbstractArray)
    return v[1] && !any(v[2:end])
end

@assert(Difference ([false, false])==false)
@assert(Difference ([true, false])==true)
@assert(Difference ([true, true])==false)
@assert(Difference ([false, true])==false)
```



## XOR(A,B)

	A	B	Result
Atom1	1	0	1
Atom2	1	1	0
Atom3	0	1	1

```
function Xor(v::AbstractArray)
    return (length([it for it in v if it]) % 2) == 1
end
```

```
@assert(Xor([false, false]) == false)
@assert(Xor([true, false]) == true)
@assert(Xor([true, true]) == false)
@assert(Xor([false, false]) == true)
```

