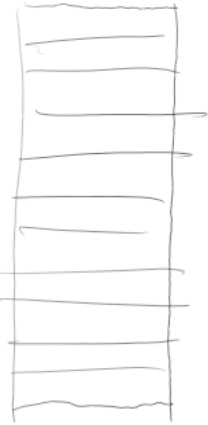


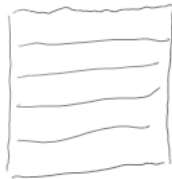
Y	Y.	B.	G.	
			R.	
		R.		
Y.			O.	
B.		O.	G.	

assigned  
coord



min/max  
Heap

Pending  
coord



stack  
LIFO

```
struct Position
{
    int x;
    int y;
}
```

```
struct GridHeuristic
{
    int id;
    int heuristic;
}
```

```
int coord2Id(int x, int y);
```

```
Position
```

```
id2Coord(int)
```

```
}
```

```
function( *arr )
{
    coord = chooseGrid(
        ); // extract
        // min
        // push
        // stack
    if ( allAssigned(coord) )
    {
        return true
    }
    for val in domain
    {
        arr[coord] = val;

        violateConstraint = check(arr);
        if violateConstraint
            continue
        else
            result = function(*arr)
            if result
                return true
            else
                unAssignGrid();
                // pop stack
                // push min heap
    }
    return false
}
```