Homework 6 Solutions

Question 1.

Solution 1)

```
        .ORIG x3000 ;
        AND R0,R0,#0 ;
        NOT R2, R2 ;
        ADD R2,R2, #1;
        ADD R0,R1,R2 ;
        BRn DONE ;
        AND R0,R0,#1;
DONE    HALT ;
        .END
```

Solution 2)

```
        .ORIG x3000 ;
        NOT R2, R2 ;
        ADD R2,R2, #1;
        ADD R0,R1,R2 ;
        BRp LOOP ;
        AND R0,R0,#0 ;
        BRnzp DONE;
LOOP    AND R0,R0,#0 ;
        ADD R0,R0,#1 ;
DONE    HALT ;
        .END
```

Question 2.

x3000	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
x3001	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
x3002	1	0	1	1	0	0	0	0	0	0	1	0	0	0	0	1
x3003	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	1
x3004	1	1	1	1	0	0	0	0	0	0	1	0	0	1	0	1
x3005	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
x3006	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1