- 1. Input: 32 bit unsigned number a and another number b <= 31. Output: is there a 1 in a on bit number b
- 2. Input: unsigned number  $\frac{a}{a}$  and number  $\frac{n}{b} > 0$ . Output:  $\frac{a}{b}$  with  $\frac{n}{b}$ -th bit set
- 3. Input: unsigned number a and number n > 0. Output: a with n-th bit unset
- 4. Input: 64 bit unsigned number a and 2 other numbers x, y <= 63. Output a with swapped bits on indices x and y
- 5. Swap high with low bits of a 64 bit unsigned number (again, to see if you get it now)
- 6. Using only bitwise operations how can you say if 2 numbers are equal? Input: 2 numbers. Output are the number equal? ( use of == is forbidden)
- 7. Input: 64 bit number. Output: is this number a power of 2 ? (Using only bitwise oprerations)
- 8. Input: 64 but unsigned a and a number b > 0. Rotate left(right) the bits of a with b bits

9. Input 16 bit unsigned number a. Output: a in binary on the console