Untitled-1

```c
/*
 * isLessOrEqual - if x <= y  then return 1, else return 0
 *   Example: isLessOrEqual(4,5) = 1.
 *   Legal ops: ! ~ & ^ | + << >>
 *   Max ops: 24
 *   Rating: 3
 */
int isLessOrEqual(int x, int y) {
  // There are two conditions in which x <= y holds true:
  // 1. When the SIGN is the same and x - y < 0 or y - x > 0
  // 2. When the SIGN differs, we just compare the signs

  // first retrieve the signs of x and y
  int sign_x = x >> 31;
  int sign_y = y >> 31;

  // using XOR to compare yields true when they differ
  // and false otherwise, add a logical NOT to flip the bit
  int same_sign = (!(sign_x ^ sign_y));

  // given than ~x = -x - 1
  // x - y < 0 => (x + ~y + 1)
  //      condition 1                         condition 2
  return (same_sign & ((x + (~y)) >> 31)) | ((!same_sign) & sign_x);
}
```