When instructed to do so, please answer the following questions as best you can. Hand in this worksheet at the end of class. Don’t forget to put your name at the top!

1. Write boolean expressions for the following:
   a) The int \( x \) either equals 2 or 3.

   b) The int \( x \) is even or it is divisible by 3.

   c) The int \( x \) is divisible by 2 and is a multiple of 3.

   d) The string \( s \) starts with an ‘a’ and is of length at least 1.

   e) For integers \( x \), \( y \), and \( z \), \( x \) is at least as big as both \( y \) and \( x \).

   f) Exactly one of integers \( x \) and \( y \) are equal to 5.

2. Write a method \texttt{xor} that takes as parameters two boolean variables \( p \) and \( q \) and returns \( p \oplus q \) (that is, \( p \) XOR \( q \)).

3. Write a method \texttt{implies} that takes as parameters two boolean variables \( p \) and \( q \) and returns \( p \Rightarrow q \) (that is, \( p \) IMPLIES \( q \)).