HW 8: Two's Complement Circuit

Use the four step *Combinational Circuit Design Process* presented in class to design circuits that take a 3-bit unsigned binary integer **X** as input and produces as output a 3-bit unsigned binary integer **Y** that is the two's complement of **X**.

$$\mathbf{Y = 2^3 - X = \overline{X} + 1}$$

Do not minimize the circuits for **Y** as a part of this assignments.

Extra credit: minimize the circuits for **Y**.

Three columns of y2 y1 y0