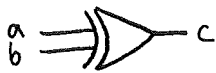


- 1) Simplify this expression and draw a circuit to implement it (1 point simplification and 1 point circuit)

$$(\bar{X}Y + XZ) * (X + \bar{Y})$$

- 2) Draw the truth table for these gates (1 point each for a total of 2 points)



- 3) Draw a circuit that will output a 1 if either... a) both x and y are 1 or if b) neither x nor z are 1. The inputs for this circuit are x, y, and z. (2 points)