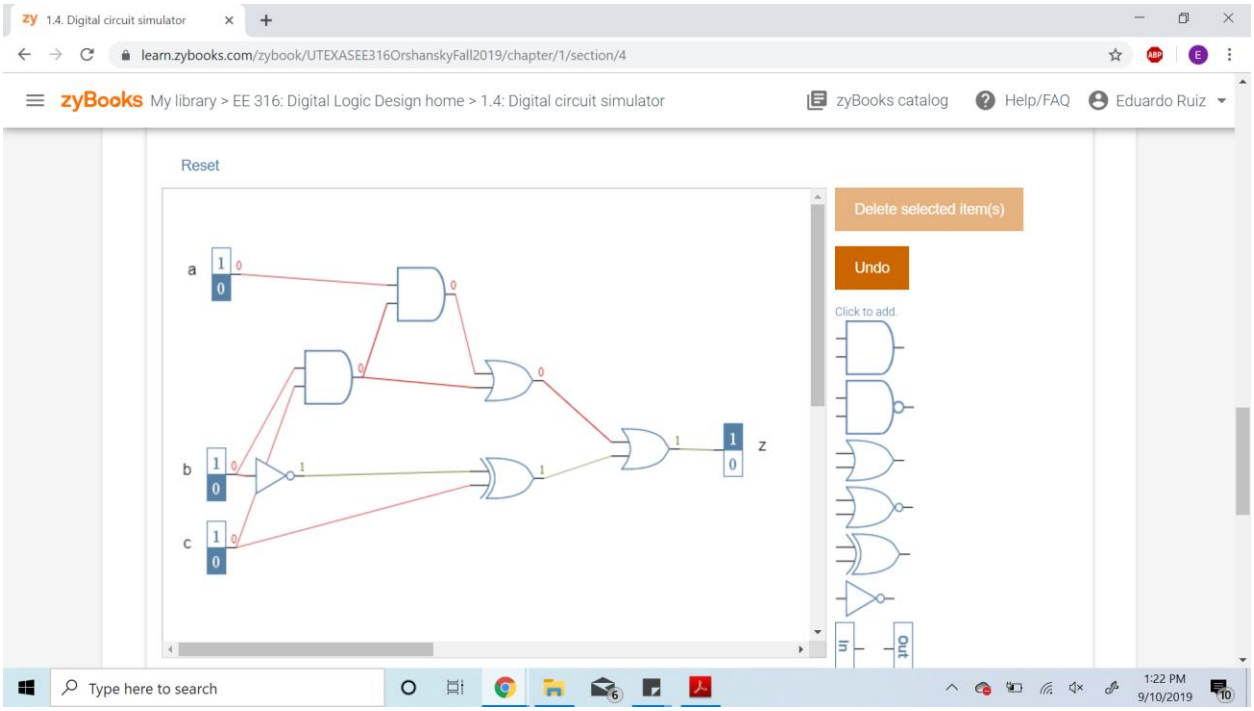
1a)

X	Y	Z	F
0	0	0	1
0	0	1	0
0	1	0	0
0	1	1	1
1	0	0	1
1	0	1	0
1	1	0	0
1	1	1	1

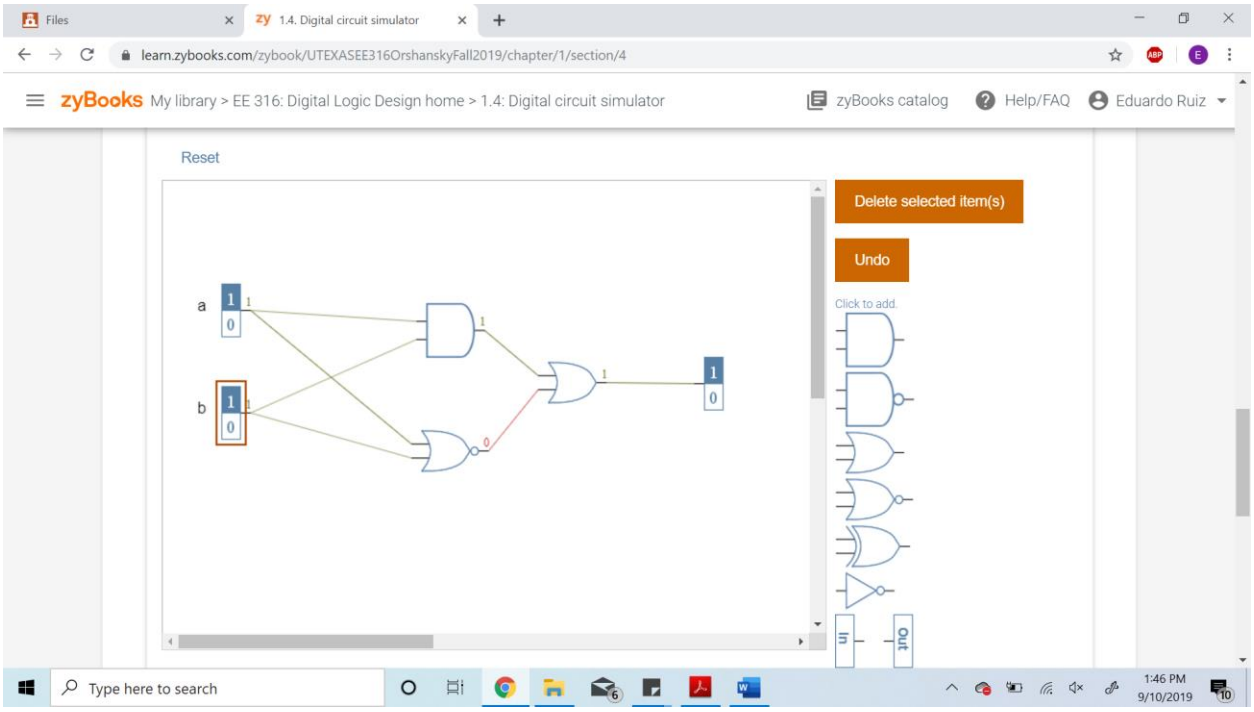
1b) X'Y'Z' + X'YZ + XY'Z' + XYZ

1c)

- Y'Z'(X' + X) + YZ(X' + X) (Distributive Law)
- Y'Z'(1) + YZ(1) (Compliment Law)
- Y'Z' + YZ (Identity)



2)



Y'Z' + YZ

(Y+Z)'+YZ DeMorgan's Law (a + b)' = NOR