Karnaugh Maps: Simplify the Boolean Function

(Practice Exercise 3.6 - textbook notation example)

$F(w,x,y,z) = \Sigma(0,2,4,6,8,10,11)$ <-means put 1's in grid filling with binary pattern from a truth table.

	y'z'	y'z	yz	yz'
w'x'	0	1	3	2
w'x	4	5	7	6
wx	12	13	15	14
wx'	8	9	11	10

w' x' y' z'	0000	0
w' x' y' z	0001	1
w' x' y z'	0010	2
w' x' y z	0011	3
w' x y' z'	0100	4
w' x y' z	0101	5
w' x y z'	0110	6
w' x y z	0111	7
w x' y' z'	1000	8
w x' y' z	1001	9
w x' y z'	1010	10
w x' y z	1011	11
w x y' z'	1100	12
w x y' z	1101	13
w x y z'	1110	14
w x y z	1111	15

wx row, yz volumn

Same ordering as above	y=0, z=0	y=0, z=1	y=1, z=1	y=1, z=0
w=0, x=0	1	0	0	1
w=0, x=1	1	0	0	1
w=1, x=1	0	0	0	0
w=1, x=0	1	0	1	1

Then, use 1's Grouping Rules on the grid:

Same ordering as above	y=0, z=0	y=0, z=1	y=1, z=1	y=1, z=0
w=0, x=0	1	0	0	1
w=0, x=1	1	0	0	1
w=1, x=1	0	0	0	0
w=1, x=0	1	0	1	1

Simplified using K-map: x'z' + w'z' + wx'y