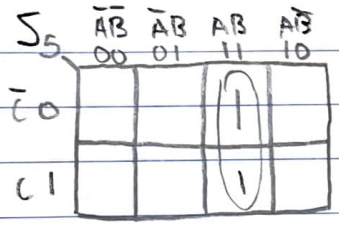
CS274: 4/6/21 Lab 7

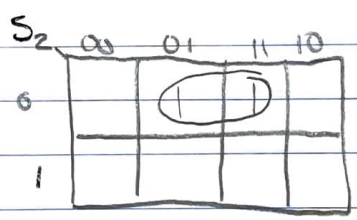
Three inputs (unsigned binary) to the square of the input (unsigned binary)

	A	B	C	S: S_5	S_4	S_3	S_2	S_1	S_0	
(0)	0	0	0	0	0	0	0	0	0	(0)
(1)	0	0	1	0	0	0	0	0	1	(1)
(2)	0	1	0	0	0	0	1	0	0	(4)
(3)	0	1	1	0	0	1	0	0	1	(9)
(4)	1	0	0	0	1	0	0	0	0	(16)
(5)	1	0	1	0	1	1	0	0	1	(25)
(6)	1	1	0	1	0	0	1	0	0	(36)
(7)	1	1	1	1	1	0	0	0	1	(49)

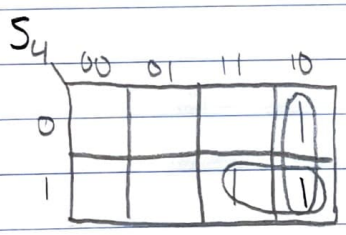
K-maps



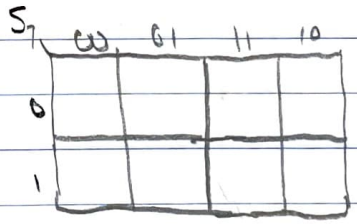
$S_5 = AB$



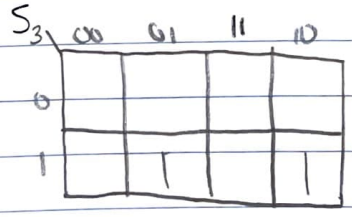
$S_2 = B\bar{C}$



$S_4 = A\bar{B} + AC$



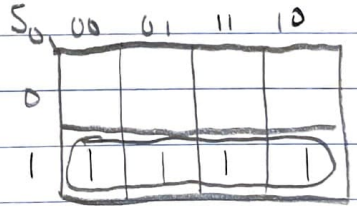
$S_1 = 0$



$S_3 = \bar{A}BC + A\bar{B}C$

$C(\bar{A}B + A\bar{B})$

$C(A \oplus B)$



$S_0 = C$