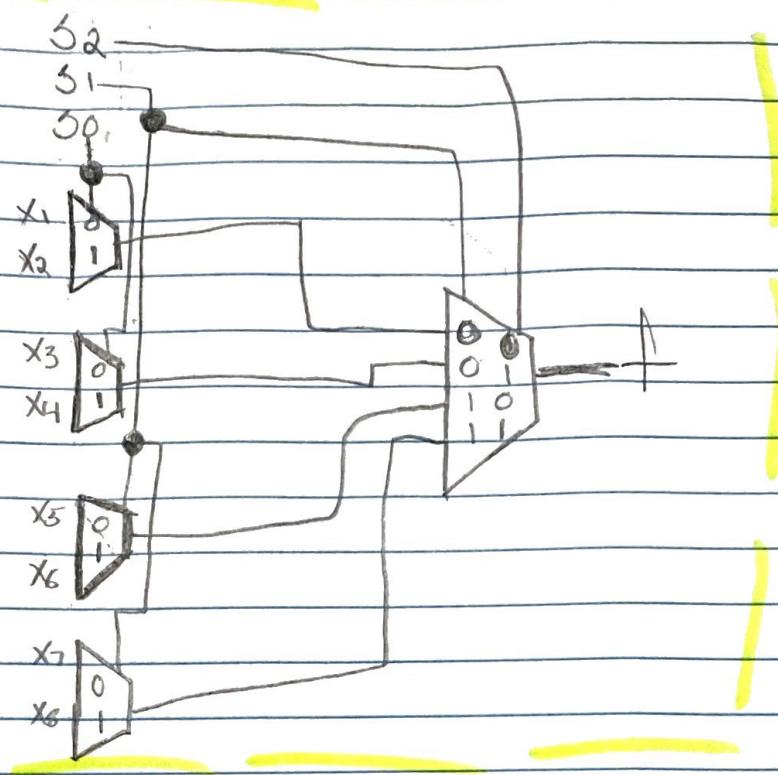
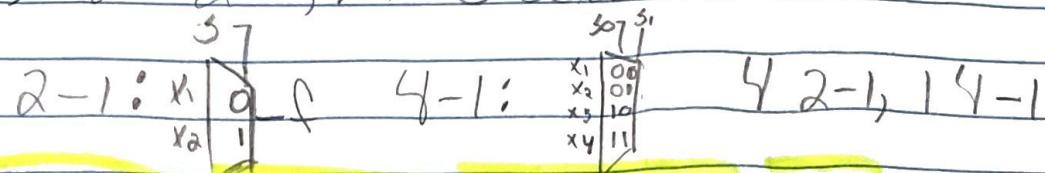


CPRE 281: Quiz 3 Digital

1) $8 = 2^m$, $m=3$ select lines



2) C | AB

| | 00 | 01 | 11 | 10 | |
|---|----|----|----|----|---|
| 0 | 0 | 0 | 0 | 0 | B |
| 1 | 0 | 0 | 0 | 1 | |

3(a)

| s0 | s1 | s2 | w | t |
|----|----|----|---|-----------------------------|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 1 | $0 \Rightarrow s_0 s_1 s_2$ |
| 0 | 1 | 0 | 1 | $\cancel{0} +$ |
| 0 | 1 | 1 | 0 | $s_0 s_1 s_2$ |
| 1 | 0 | 0 | 1 | $\cancel{0} +$ |
| 1 | 0 | 1 | 0 | $s_0 s_1 \cancel{s_2}$ |
| 1 | 1 | 0 | 1 | $\cancel{+} +$ |
| 1 | 1 | 1 | 0 | $s_0 s_1 s_2$ |

S_2

S_0S_1

| | | | | |
|---|----|----|----|----|
| | 00 | 01 | 11 | 10 |
| 0 | 0 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 | 1 |

$$S_1S_2 + S_0S_1 + S_0S_2$$

$S_0S_1S_2$

+

$S_0S_1S_2$

+

$S_0S_1S_2$

+

$S_0S_1S_2$