Part I

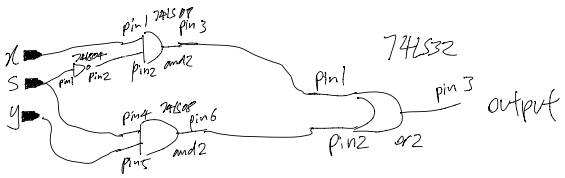
$f = xs' + ys$

$= x + y$

2. Truth table

X	y	S	out
0	0	0	0
0	0	1	0
0	1	0	0
1	0	0	1
1	0	1	0
1	1	0	1
0	1	1	1
1	1	1	1

1.



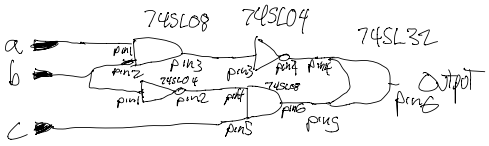
Part II

$f = (a+b)' + cb'$

$= \bar{a}\cdot\bar{b} + c\bar{b}$

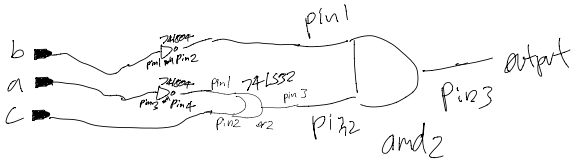
$= \bar{b}\cdot(\bar{a}+c)$

1.



2. Truth table

a	b	c	out
0	0	0	1
0	0	1	1
0	1	0	0
0	1	1	0
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	0

3.

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