

Inputs		Output	
X	Y	$S_{HA} = x'y + xy'$	$C_{HA} = x y$
0	0	0	0
0	1	1	0
1	0	1	0
1	1	0	1

$$S_{HA} = x'y + xy'$$

$$C_{HA} = xy$$

i/p's			o/p's			
x	Y	z	S <sub>FA</sub>		C <sub>FA</sub>	
			Actual	Observed	Actual	Observed
0	0	0	0	0	0	0
0	0	1	1	1	0	0
0	1	0	1	1	0	0
0	1	1	0	0	1	1
1	0	0	1	1	0	0
1	0	1	0	0	1	1
1	1	0	0	0	1	1
1	1	1	1	1	1	1

$$S_{FA} = (xy' + x'y)(z') + (xy' + x'y)'(z)$$

$$Xy'z' + x'yz' + [(x'+y)(x+y')](z)$$

$$Xy'z' + x'yz' + [x'y' + xy](z)$$

$$\rightarrow xy'z' + x'yz' + x'y'z + xyz$$

$$C_{FA} = xy + [(xy' + x'y)(z)]$$

$$\rightarrow xy + xy'z + x'yz$$