Problem Set #4

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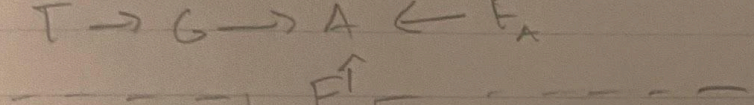
1) T = Actual temp is high
F_A = Alarm Faulty
G = Gauge reports high temp
F_G = Gauge Faulty
A = Alarm Sound



2)

T	F_G	$P(G=high \mid T, F_G)$	$P(G=normal \mid T, F_G)$
high	not faulty	x	$1-x$
high	faulty	y	$1-y$
normal	not faulty	$1-x$	x
normal	faulty	$1-y$	y

3)

G	F_A	$P(A=Sound \mid G, F_A)$	$P(A=silent \mid G, F_A)$
high	not fault	1	0
high	fault	0	1
normal	not fault	0	1
normal	fault	0	1

4) A = sound (Alarm), F_A = Not Faulty, F_G = not faulty

Bayes Rule: $P(T=high \mid A=sound, F_A=\text{not faulty},$