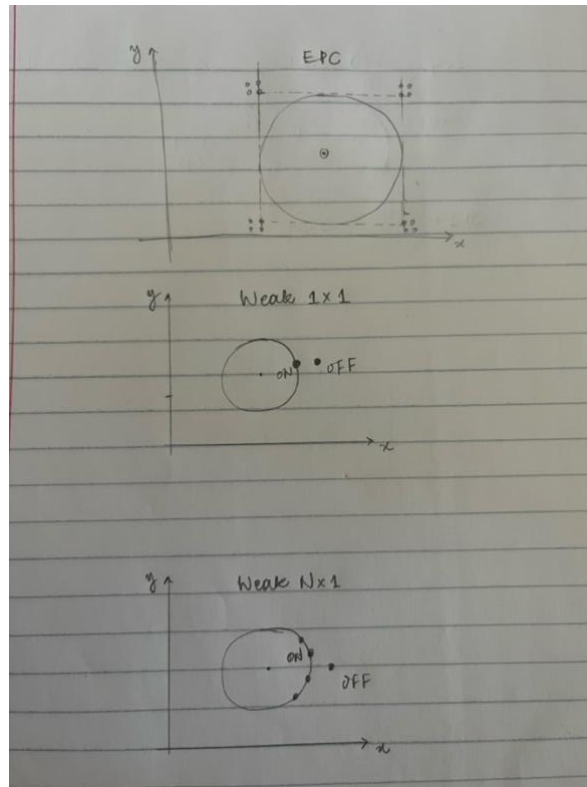## 9.7:

The following image shows the way to pick testing points for a round sub-domain:

FSM:

The chosen software is responsible for running the electronic payment terminal that we encounter in our daily life. The input Domain is the credit/debit card itself in addition of the card pin.
For the payment card it could be fully operative (working, active), or maybe it has a problem (card disabled/frozen, not enough funds) with a possibility that the user may insert correct or incorrect pin, chose not to tip or tip any other amount ...etc.

After performing the proper analysis, we can draw the following FSM chart:

While having the graphical representation we can easily produce the other two representations:

- a- Sets representation:
  - States: {A, B, C, D, E, F, G, H, I, J, K, L, M}
  - Links (transitions): {A-A, A-B, A-C, B-A, C-D, D-D, D-E, D-F, F-F, F-G, F-H, H-I, H-J, I-J, J-K, J-L}
- b- Table representation:

F/T	A	B	C	D	E	F	G	H	I	J	K	L
A	F&N<5/-	F&N=5/-	S/-	NA	NA	NA	NA	NA	NA	NA	NA	NA
B	T=30s/-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C	NA	NA	NA	-/-	NA	NA	NA	NA	NA	NA	NA	NA
D	NA	NA	NA	F&N<5/-	F&N=5/-	S/-	NA	NA	NA	NA	NA	NA
E	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F	NA	NA	NA	NA	NA	W&N<3/-	W&N=3/-	Corr/-	NA	NA	NA	NA
G	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H	NA	NA	NA	NA	NA	NA	NA	NA	tip!=0/-	tip=o/-	NA	NA
I	NA	NA	NA	NA	NA	NA	NA	NA	NA	-/-	NA	NA
J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDI/-	MTS/-
K	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA