ECS 154A Homework 4

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1. Implement the following D flipflop as a JK flipflop.

D

YZ	QX 00	01	11	10
00	1	0	0	1
01	1	1	1	0
11	1	1	1	1
10	0	1	0	0

J

YZ	QX 00	01	11	10
00	1	0	d	d
01	1	1	d	d
11	1	1	d	d
10	0	1	d	d

$J = Z + \overline{X}\,\overline{Y} + XY$

K

YZ	QX 00	01	11	10
00	d	d	1	0
01	d	d	0	1
11	d	d	0	0
10	d	d	1	1

$K = X\overline{Z} + Y\overline{Z} + \overline{X}\,\overline{Y}Z$