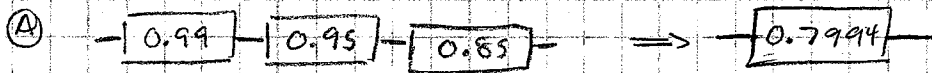
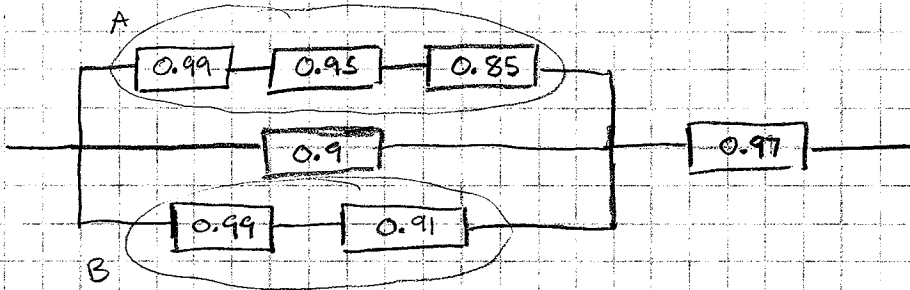


Example 1

Compute the reliability of the following system

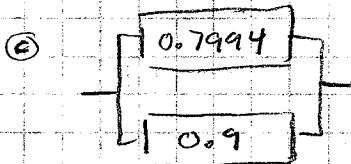
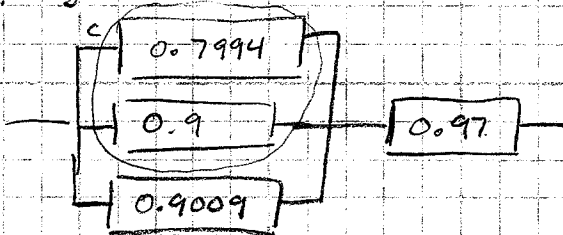


$$0.99 * 0.95 * 0.85 = 0.799425$$



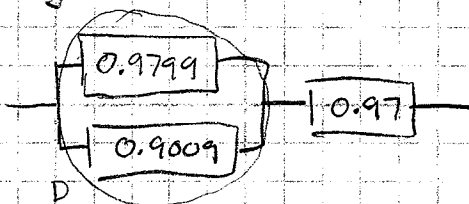
$$0.99 * 0.91 = 0.9009$$

Replacing A and B:



$$0.7994 + 0.9 - (0.7994)(0.9) = 0.9799$$

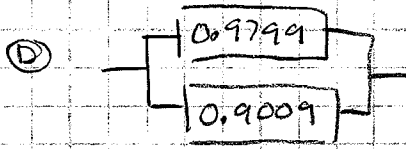
Replacing C



3-0285 — 50 SHEETS — 5 SQUARES
 3-0286 — 100 SHEETS — 5 SQUARES
 3-0287 — 200 SHEETS — 5 SQUARES
 3-0137 — 200 SHEETS — FILLER

COMET

Example 1-cont.



$$0.9799 + 0.9009 - (0.9799)(0.9009) = 0.998$$

Replacing ⓓ



$$0.998 * 0.97 = 0.968$$

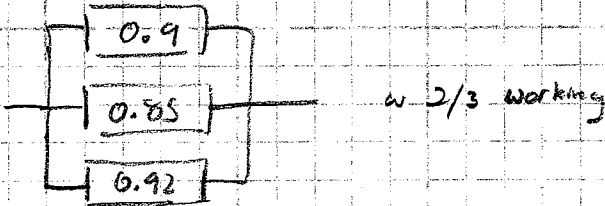
$$R = 0.968$$

3-0235 — 50 SHEETS — 5 SQUARES
3-0236 — 100 SHEETS — 5 SQUARES
3-0237 — 200 SHEETS — 5 SQUARES
3-0137 — 200 SHEETS — FILLER

COMET

Example 2

You have three different flight computers wired in parallel. For the system to be successful, at least two must function properly. What is the probability that 2 of the 3 flight computers will work? The reliabilities of the flight computers are 0.9, 0.85, 0.92.



	(A)	(B)	(C)	Reliability	Working flt. comp	2 or more working?
	0.9	0.85	0.92	0.7038	A, B, C	✓
			0.08	0.0612	A, B	✓
		0.15	0.92	0.1242	A, C	✓
			0.08	0.0108	A	
0.1	0.85	0.92	0.92	0.0782	B, C	✓
			0.08	0.0068	B	
		0.15	0.92	0.0138	C	
			0.08	0.0012	-	
				<u>1.0000</u>		<u>0.9674</u>

$R_{2/3} = 0.9674$

3-0235 — 50 SHEETS — 5 SQUARES
 3-0236 — 100 SHEETS — 5 SQUARES
 3-0237 — 200 SHEETS — 5 SQUARES
 3-0137 — 200 SHEETS — FILLER

COMET