PROGRAM 4: WRITE A PROGRAM IN MATLAB TO FIND OUT TH
FUNCTION USING SIGNAL FLOW GRAPH AND MASON GAIN F

THEORY:

SIGFLOW solves Signal Flow Graph by matrix inversion
SYS=SIGFLOW (Q, P) calculates the system transfer function
s)'s=X/U=inv(I-Q)*P
This method can be applied to different courses that deal with
different courses, people use different methods to
PRETTY Pretty print a symbolic expression
a format that resembles type-set mathematics

Q =

| 0, 0, 0, 0, 0, 0, 0, 0|
| 1, 0, -1, 0, -1, 0, 0, 0|
| 0, G1, 0, 0, 0, 0, 0, 0|
| 1, 0, 1, 0, -1, 0, 0, 0|

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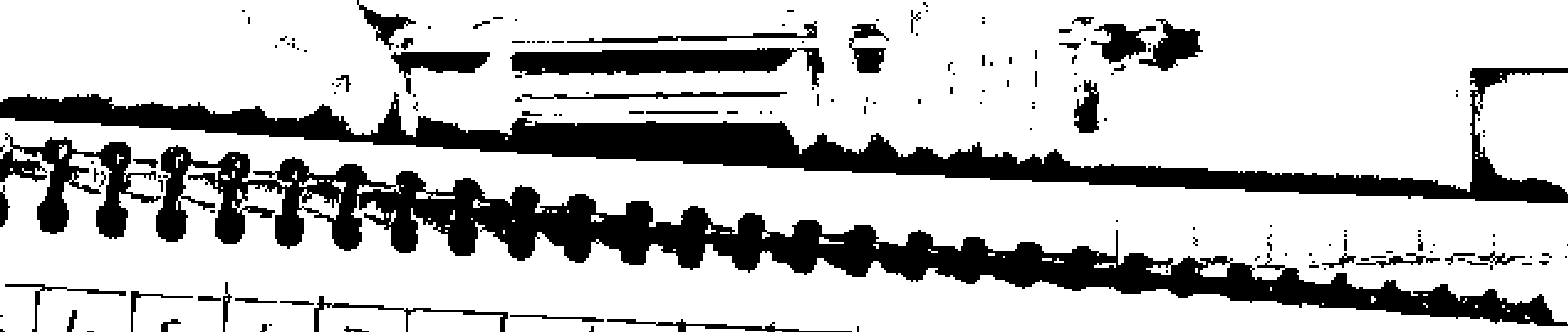
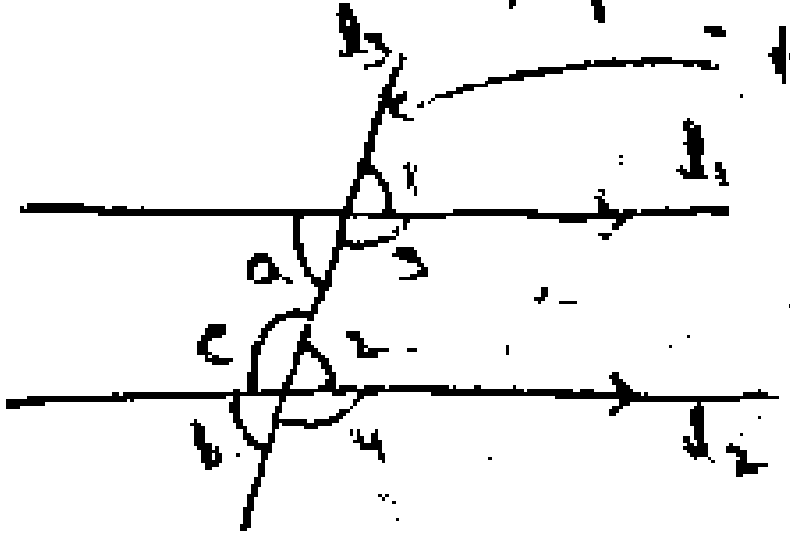
Q =

0,	0,	0,	0,	0,	0,	0,	0
1,	0,	-1,	0,	-1,	0,	0,	0
0,	G1,	0,	0,	0,	0,	0,	0
1,	0,	1,	0,	-1,	0,	0,	0
0,	0,	0,	G2,	0,	0,	0,	0



4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80
20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
28	35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140
32	40	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160
36	45	54	63	72	81	90	99	108	117	126	135	144	153	162	171	180
40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200

24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40



transversal line

$l_1 \parallel l_2$

Axiom →

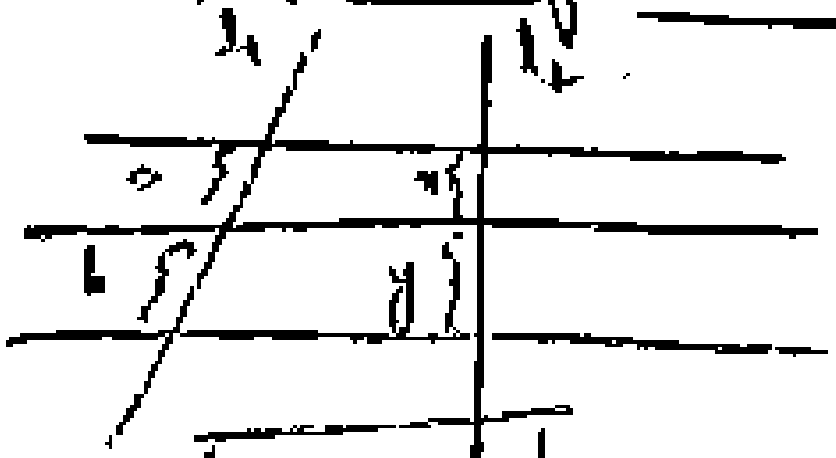
Con

1 & 2 → corresponding angles
3 & 4
a & b → vert. opposite angles

1 & b → alterna

a & 2 → eq

Basic proportionality Theorem



$$\boxed{\frac{a}{b} = \frac{x}{y}}$$