

با افزودن  $I$ ، ماتریس  $[A \ I]$  را تشکیل می‌دهیم و سعی می‌کنیم با کاهش سطری،  $A$  را به  $I$  کاهش دهیم. حاصل هرکدام از چاپ‌ها زیر کد نوشته شده است.  $A^{-1}$  برابر با نیمه راست آخرین ماتریس می‌باشد.

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1 - A = [1 1 1 1 0; 1 1 0 1 1; 1 0 1 0 0; 1 1 0 1 0; 0 1 0 0 1];
2 - I = [1 0 0 0 0; 0 1 0 0 0; 0 0 1 0 0; 0 0 0 1 0; 0 0 0 0 1];
3 - augmented = [A I];
4 - disp(augmented);
5 - augmented(2,:) = augmented(2,:) - augmented(1,:);
6 - augmented(3,:) = augmented(3,:) - augmented(1,:);
7 - augmented(4,:) = augmented(4,:) - augmented(1,:);
8 - disp(augmented);
9 - % switch row 2 and 5:
10 - temprow = augmented(2,:);
11 - augmented(2,:) = augmented(5,:);
12 - augmented(5,:) = temprow;
13 - % switch row 3 and 4:
14 - temprow = augmented(3,:);
15 - augmented(3,:) = augmented(4,:);
16 - augmented(4,:) = temprow;
17 - disp(augmented);
18 - augmented(4,:) = augmented(4,:) + augmented(2,:);
19 - disp(augmented);
20 - augmented(5,:) = augmented(5,:) - augmented(3,:);
21 - disp(augmented);
22 - augmented(4,:) = augmented(4,:) - augmented(5,:);
23 - augmented(2,:) = augmented(2,:) - augmented(5,:);
24 - disp(augmented);
25 - augmented(1,:) = augmented(1,:) + augmented(4,:);
26 - disp(augmented);
27 - augmented(1,:) = augmented(1,:) + augmented(3,:);
28 - disp(augmented);
29 - augmented(1,:) = augmented(1,:) - augmented(2,:);
30 - disp(augmented);
31 - augmented(3,:) = - augmented(3,:);
32 - augmented(4,:) = - augmented(4,:);
33 - disp(augmented);

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>> Untitled

line 4

1	1	1	1	0	1	0	0	0	0
1	1	0	1	1	0	1	0	0	0
1	0	1	0	0	0	0	1	0	0
1	1	0	1	0	0	0	0	1	0
0	1	0	0	1	0	0	0	0	1

line 8

1	1	1	1	0	1	0	0	0	0
0	0	-1	0	1	-1	1	0	0	0
0	-1	0	-1	0	-1	0	1	0	0
0	0	-1	0	0	-1	0	0	1	0
0	1	0	0	1	0	0	0	0	1

line 17

1	1	1	1	0	1	0	0	0	0
0	1	0	0	1	0	0	0	0	1
0	0	-1	0	0	-1	0	0	1	0
0	-1	0	-1	0	-1	0	1	0	0
0	0	-1	0	1	-1	1	0	0	0

line 19

1	1	1	1	0	1	0	0	0	0
0	1	0	0	1	0	0	0	0	1
0	0	-1	0	0	-1	0	0	1	0
0	0	0	-1	1	-1	0	1	0	1
0	0	-1	0	1	-1	1	0	0	0

line 21

1	1	1	1	0	1	0	0	0	0
0	1	0	0	1	0	0	0	0	1
0	0	-1	0	0	-1	0	0	1	0
0	0	0	-1	1	-1	0	1	0	1
0	0	0	0	1	0	1	0	-1	0

line 24

1	1	1	1	0	1	0	0	0	0
0	1	0	0	0	0	-1	0	1	1
0	0	-1	0	0	-1	0	0	1	0
0	0	0	-1	0	-1	-1	1	1	1
0	0	0	0	1	0	1	0	-1	0

line 26

1	1	1	0	0	0	-1	1	1	1
0	1	0	0	0	0	-1	0	1	1
0	0	-1	0	0	-1	0	0	1	0
0	0	0	-1	0	-1	-1	1	1	1
0	0	0	0	1	0	1	0	-1	0

line 28

1	1	0	0	0	-1	-1	1	2	1
0	1	0	0	0	0	-1	0	1	1
0	0	-1	0	0	-1	0	0	1	0
0	0	0	-1	0	-1	-1	1	1	1
0	0	0	0	1	0	1	0	-1	0

line 30

1	0	0	0	0	-1	0	1	1	0
0	1	0	0	0	0	-1	0	1	1
0	0	-1	0	0	-1	0	0	1	0
0	0	0	-1	0	-1	-1	1	1	1
0	0	0	0	1	0	1	0	-1	0

FINAL

1	0	0	0	0	-1	0	1	1	0
0	1	0	0	0	0	-1	0	1	1
0	0	1	0	0	1	0	0	-1	0
0	0	0	1	0	1	1	-1	-1	-1
0	0	0	0	1	0	1	0	-1	0