

Questão 1

>> Questao1()

ans =

1	1	0.92214	0.077863	0.077863
2	2	1.919	0.080996	0.040498
3	6	5.8362	0.16379	0.027298
4	24	23.506	0.49382	0.020576
5	120	118.02	1.9808	0.016507
6	720	710.08	9.9218	0.01378
7	5040	4980.4	59.604	0.011826
8	40320	39902	417.6	0.010357
9	3.6288e+005	3.5954e+005	3343.1	0.0092128
10	3.6288e+006	3.5987e+006	30104	0.008296
11	3.9917e+007	3.9616e+007	3.0117e+005	0.0075451
12	4.79e+008	4.7569e+008	3.3141e+006	0.0069188
13	6.227e+009	6.1872e+009	3.9781e+007	0.0063885
14	8.7178e+010	8.6661e+010	5.1729e+008	0.0059337
15	1.3077e+012	1.3004e+012	7.2436e+009	0.0055393

Questão 2

Questão 3

ELIMINAÇÃO DE GAUSS	Pivo = Au(2,2) -> 0.884459
Pivo = Au(1,1) -> 0.0375	p(2) = 1
Novo Pivo = Au(2,1) -> 0.4625	L3 = - L3 / 0.884459 * L2 + L3
Linha L1 swap L2	Au =
Au =	0.46 0.04 0.89 0.46 2.00
0.46 0.04 0.89 0.46 2.00	0.00 0.88 -0.03 0.00 1.84
0.46 0.04 0.89 0.46 2.00	0.00 0.00 -0.03 0.42 0.77
0.04 0.04 0.04 0.46 1.00	0.00 0.00 -0.85 -0.42 -1.00
0.46 0.04 0.04 0.04 1.00	
	L4 = - L4 / 0.884459 * L2 + L4
Au =	Au =
0.46 0.04 0.89 0.46 2.00	0.46 0.04 0.89 0.46 2.00
0.04 0.89 0.04 0.04 2.00	0.00 0.88 -0.03 0.00 1.84
0.04 0.04 0.04 0.46 1.00	0.00 0.00 -0.03 0.42 0.77
0.46 0.04 0.04 0.04 1.00	0.00 0.00 -0.85 -0.42 -1.00
L2 = - L2 / pivo * L1 + L2	Pivo = Au(3,3) -> -0.0331169
Au =	p(3) = 3
0.46 0.04 0.89 0.46 2.00	L4 = - L4 / -0.0331169 * L3 + L4
0.00 0.88 -0.03 0.00 1.84	Au =
	0.46 0.04 0.89 0.46 2.00

0.00	0.88	-0.03	0.00	1.84
0.00	0.00	-0.03	0.42	0.77
0.00	0.00	0.00	-11.33	-20.67

$$L3 = -L3 / \text{pivo} * L1 + L3$$

Au =

0.46	0.04	0.89	0.46	2.00
0.00	0.88	-0.03	0.00	1.84
0.00	0.03	-0.03	0.42	0.84
0.46	0.04	0.04	0.04	1.00

Pivo = $A_{u(4,4)} \rightarrow -11.3333$

$$p(4) = 4$$
$$L(2,1) = m(2,1)$$
$$L =$$

1.00	0.00	0.00	0.00
0.08	1.00	0.00	0.00
0.00	0.00	1.00	0.00
0.00	0.00	0.00	1.00

$$L4 = -L4 / \text{pivo} * L1 + L4$$

Au =

0.46	0.04	0.89	0.46	2.00
0.00	0.88	-0.03	0.00	1.84
0.00	0.03	-0.03	0.42	0.84
0.00	0.00	-0.85	-0.42	-1.00

$$L(3,1) = m(3,1)$$
$$L =$$

1.00	0.00	0.00	0.00
0.08	1.00	0.00	0.00
0.08	0.00	1.00	0.00
0.00	0.00	0.00	1.00

Pivo = $A_{u(2,2)}$ $\rightarrow 0.884459$

$$L3 = -L3 / \text{pivo} * L2 + L3$$

Au =

0.46	0.04	0.89	0.46	2.00
0.00	0.88	-0.03	0.00	1.84
0.00	0.00	-0.03	0.42	0.77
0.00	0.00	-0.85	-0.42	-1.00

$$L(3,2) = m(3,2)$$
$$L =$$

1.00	0.00	0.00	0.00
0.08	1.00	0.00	0.00
0.08	0.04	1.00	0.00
0.00	0.00	0.00	1.00

$$L4 = -L4 / \text{pivo} * L2 + L4$$

Au =

0.46	0.04	0.89	0.46	2.00
0.00	0.88	-0.03	0.00	1.84
0.00	0.00	-0.03	0.42	0.77
0.00	0.00	-0.85	-0.42	-1.00

$$L(4,1) = m(4,1)$$
$$L =$$

1.00	0.00	0.00	0.00
0.08	1.00	0.00	0.00
0.08	0.04	1.00	0.00
1.00	0.00	0.00	1.00

$$L(4,2) = m(4,2)$$
$$L =$$

1.00	0.00	0.00	0.00
0.08	1.00	0.00	0.00
0.08	0.04	1.00	0.00
1.00	0.00	0.00	1.00

Susbtituição Suscessiva (L,P*b)

$$y =$$

2.00
1.84
0.77
-20.67

$$L(4,3) = m(4,3)$$
$$L =$$

1.00	0.00	0.00	0.00
0.08	1.00	0.00	0.00
0.08	0.04	1.00	0.00
1.00	0.00	25.67	1.00

Substituição Retroativa (U,y)

$$X =$$

1.82
2.09
0.26
1.82

$$P(1, p(2)) = 1$$
$$P =$$

0.00 1.00

Residuo =

0.00
0.00
0.00
-0.00

$$P(2, p(1)) = 1$$
$$P =$$

0.00	1.00
1.00	0.00

```
>> importancia = [(1:4)' x]
importancia =
```

P(3,p(3)) = 1

P =

0.00	1.00	0.00
1.00	0.00	0.00
0.00	0.00	1.00

P(4,p(4)) = 1

P =

0.00	1.00	0.00	0.00
1.00	0.00	0.00	0.00
0.00	0.00	1.00	0.00
0.00	0.00	0.00	1.00

U =

0.46	0.04	0.89	0.46
0.00	0.88	-0.03	0.00
0.00	0.00	-0.03	0.42
0.00	0.00	0.00	-11.33

L =

1.00	0.00	0.00	0.00
0.08	1.00	0.00	0.00
0.08	0.04	1.00	0.00
1.00	0.00	25.67	1.00

P =

0.00	1.00	0.00	0.00
1.00	0.00	0.00	0.00
0.00	0.00	1.00	0.00
0.00	0.00	0.00	1.00

1.00	1.82
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2.00	2.09
------	------

3.00	0.26
------	------

4.00	1.82
------	------

>> importancia = [(1:4)' sort(importancia(:,2))]

importancia =

1.00	0.26
------	------

2.00	1.82
------	------

3.00	1.82
------	------

4.00	2.09
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A página mais importante é a 2.