

```

> AA := Matrix([ [5, 1, 1, 1], [1, 3, 1, 1], [1, -2, -9, 1], [1, 3, -2, 5] ]);
b := Vector([ -6, 2, -7, 3 ]);
n := 4 :
x0 := [0, 0, 0, 0] :
xI := [0, 0, 0, 0] :
for iter from 1 to 20 do
  for i from 1 to n do
    xI[i] := b[i];
    for j from 1 to n do
      xI[i] := xI[i] - AA[i,j]·x0[j];
    end do:
    xI[i] := xI[i] + AA[i,i]·x0[i];
    xI[i] :=  $\frac{xI[i]}{AA[i,i]}$ ;
    x0 := evalf(xI);    #ここが違う
  end do:
print(iter, x0);      #ヤコビではここ(end doの下)に入っていた
end do;

```

$$AA := \begin{bmatrix} 5 & 1 & 1 & 1 \\ 1 & 3 & 1 & 1 \\ 1 & -2 & -9 & 1 \\ 1 & 3 & -2 & 5 \end{bmatrix}$$

$$b := \begin{bmatrix} -6 \\ 2 \\ -7 \\ 3 \end{bmatrix}$$

```

1, [-1.200000000, 1.066666667, 0.4074074073, 0.3629629628]
2, [-1.567407407, 0.9323456790, 0.4367626887, 0.5287791494]
3, [-1.579577503, 0.8713452217, 0.4673901337, 0.5800644210]
4, [-1.583759955, 0.8454351333, 0.4783815777, 0.6008435420]
5, [-1.584932051, 0.8352356437, 0.4828266893, 0.6089756998]
6, [-1.585407607, 0.8312017393, 0.4845738460, 0.6121900162]
7, [-1.585593120, 0.8296097527, 0.4852641546, 0.6134584342]
8, [-1.585666468, 0.8289812930, 0.4855365978, 0.6139591570]
9, [-1.585695410, 0.8287332183, 0.4856441456, 0.6141568092]
10, [-1.585706835, 0.8286352933, 0.4856865986, 0.6142348304]
11, [-1.585711344, 0.8285966383, 0.4857033566, 0.6142656284]
12, [-1.585713125, 0.8285813800, 0.4857099714, 0.6142777856]
13, [-1.585713827, 0.8285753567, 0.4857125829, 0.6142825846]
14, [-1.585714105, 0.8285729793, 0.4857136134, 0.6142844788]
15, [-1.585714214, 0.8285720407, 0.4857140204, 0.6142852266]
16, [-1.585714258, 0.8285716703, 0.4857141809, 0.6142855218]
17, [-1.585714275, 0.8285715240, 0.4857142443, 0.6142856384]
18, [-1.585714281, 0.8285714660, 0.4857142694, 0.6142856844]
19, [-1.585714284, 0.8285714433, 0.4857142792, 0.6142857024]
20, [-1.585714285, 0.8285714343, 0.4857142831, 0.6142857096]

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