1.10N

Bogdan Chwaliński

KOD

Funckja licząca rozwiązania wykorzystując zależność [A][x]=[B]

```
function x = Gauss(a,b)

ab = [a,b];
[R, C] = size(ab);
for j = 1:R-1
    for i = j+1:R
        ab(i,j:C) = ab(i,j:C)-ab(i,j)/ab(j,j)*ab(j,j:C);
    end
end
x = zeros(R,1);
x(R) = ab(R,C)/ab(R,R);
for i = R-1:-1:1
    x(i)=(ab(i,C)-ab(i,i+1:R)*x(i+1:R))/ab(i,i);
end
```

```
>> A = [4 1 0 0 0 0 1;
1 4 1 0 0 0 0;
0 1 4 1 0 0 0;
0 0 1 4 1 0 0;
0 0 0 1 4 1 0;
0 0 0 0 1 4 1
;1 0 0 0 0 1 4]

A =

   4   1   0   0   0   0   1
   1   4   1   0   0   0   0
   0   1   4   1   0   0   0
   0   0   1   4   1   0   0
   0   0   0   1   4   1   0
   0   0   0   0   1   4   1
   1   0   0   0   0   1   4

>> B = [1;2;3;4;5;6;7]

B =

   1
   2
   3
   4
   5
   6
   7

>> x = Gauss(A,B)
```

WYNIKI

x =

-0.260162601626016
0.447154471544715
0.471544715447154
0.666666666666667
0.861788617886179
0.886178861788618
1.593495934959349