
Dr. Leon VanDommelen (11/07/19) 3

Table of Contents

EXAM 2, Question 3 FAKED	1
FAKE SOLUTION:	1

IMPORTANT:

Do not change **anything** in this header (besides your name and exam date above as needed)!

Put your solution to the question completely at the end of this file.

EXAM 2, Question 3 FAKED

```
if ~exist('__code__', 'var') ; clear ; end
format compact
more off
```

FAKE SOLUTION:

```
% set the number of grid points in each direction
n=11
m=11

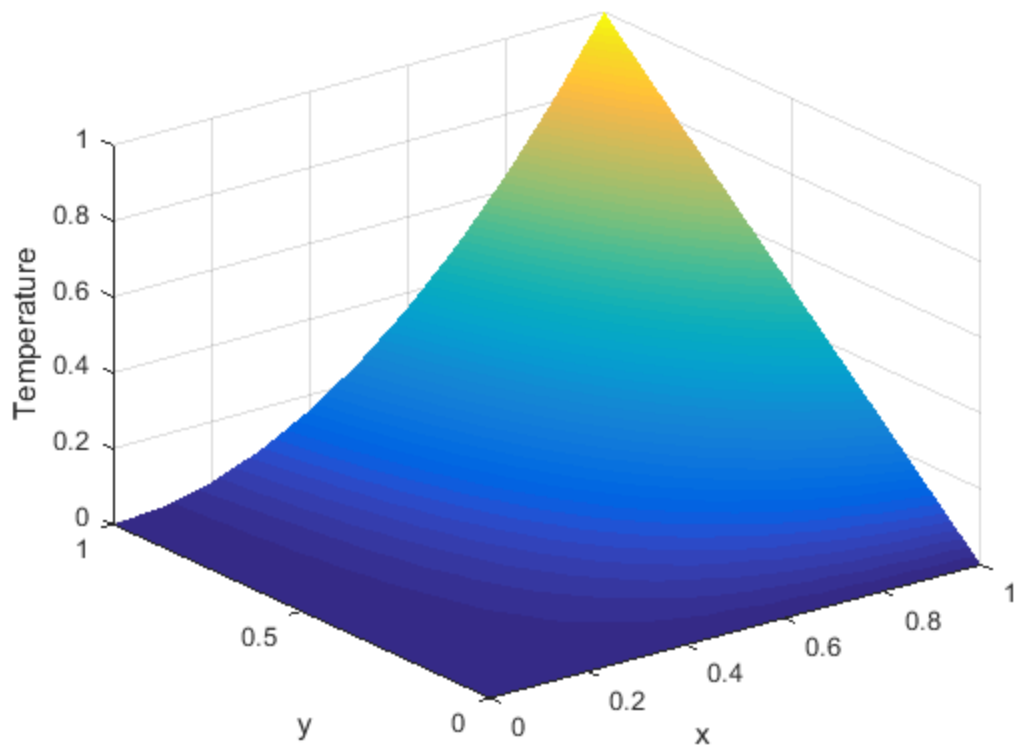
% create the grid
xVals=linspace(0,1,n);
yVals=linspace(0,1,m);
%[xGrid yGrid]=meshgrid(xVals,yVals);

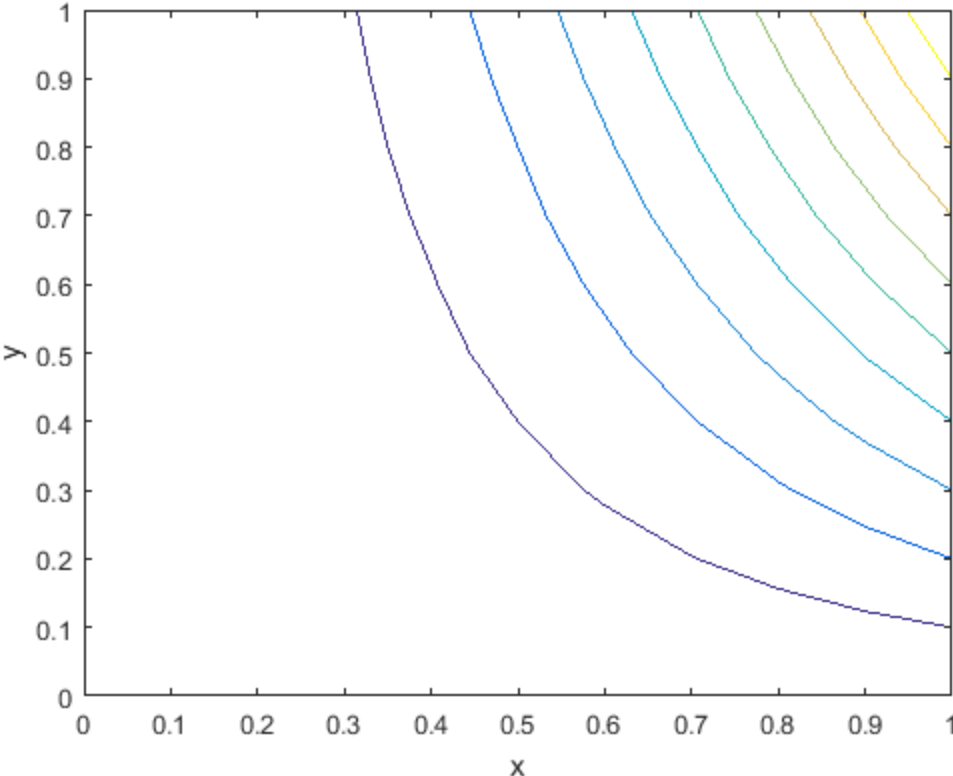
% create the temperature values on the grid
%forcing=zeros(m,n);
%forcing(n,:)=xVals.^2;
%forcing(:,m)=yVals;
%TGrid=SimplePoisson(xVals,yVals,forcing);

% faked temperature distrubution
xGrid=zeros(m,n); yGrid=zeros(m,n); TGrid=zeros(m,n);
for i=1:m; for j=1:n
    xGrid(i,j)=xVals(j); yGrid(i,j)=yVals(i);
    TGrid(i,j)=xVals(j)^2*yVals(i);
end; end

% plot the surface
figure(1)
surf(xGrid,yGrid,TGrid)
shading interp
xlabel('x')
ylabel('y')
```

```
zlabel('Temperature')  
  
% plot contour lines  
figure(2)  
contour(xGrid,yGrid,TGrid,[0.1:0.1:0.9])  
xlabel('x')  
ylabel('y')  
  
n =  
    11  
m =  
    11
```





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