```
Nterms=35 %Just testing around, this is accurate within ~15 decimals.
```

```
Nterms = 35
```

```
testX=0.1 % Between 0 and 0.3927
```

```
testX = 0.1000
```

```
testY=0.2 % Between 0 and 0.1963 This will blow up if out of this range.
```

```
testY = 0.2000
```

```
xSteps=50
```

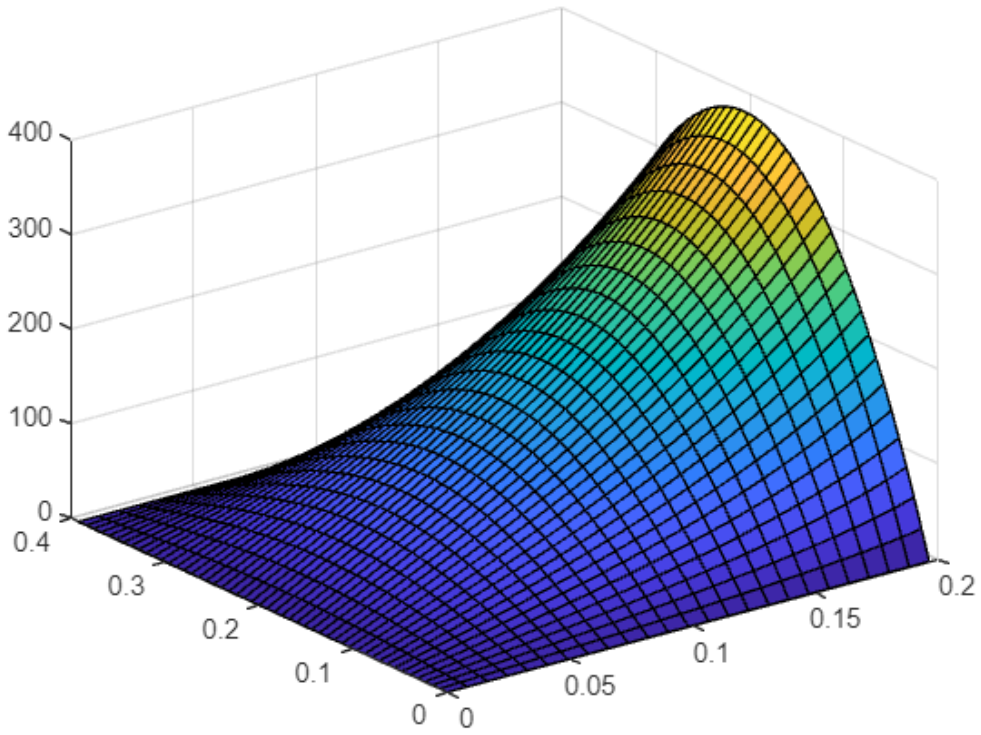
```
xSteps = 50
```

```
ySteps=25
```

```
ySteps = 25
```

```
xTerms=linspace(0,pi/8,xSteps);
yTerms=linspace(0,pi/16,ySteps);
zTerms = zeros(xSteps, ySteps);
for i = 1:xSteps
    for j = 1:ySteps
        zTerms(i,j) = Analyticalsum(xTerms(i), yTerms(j), Nterms);
    end
end

figure
surf(yTerms, xTerms, zTerms)
```




```
function hi = Analyticalsum(x,y,Nterms)
    hi = 0;

Analytical= @(x,y,n) (625*(4*sin(pi*n/2)^2-pi*n*sin(pi*n))/(2*n^3*pi*sinh(pi*n/
2)))...
    *sin(8*n*x)*sinh(8*n*y);
    for i = 1:Nterms
        hi = hi + Analytical(x,y,i);
    end
end
```