

MATH 5603 Homework 3

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Problem 6

```
A = [9, -5;-5 ,8];  
b = [0,6]';  
x = A \ b;  
disp(x')
```

Column 1

6.382978723404255e-01

Column 2

1.148936170212766e+00

```
r = A*x - b;  
format longE  
disp(r')
```

0 0

```
cond(A,"inf")
```

```
ans =  
4.170212765957446e+00
```

```
A_inv = inv(A)
```

```
A_inv = 2x2  
1.702127659574468e-01 1.063829787234043e-01  
1.063829787234043e-01 1.914893617021277e-01
```

```
norm(A_inv, "inf")*norm(A,"inf")
```

```
ans =  
4.170212765957446e+00
```