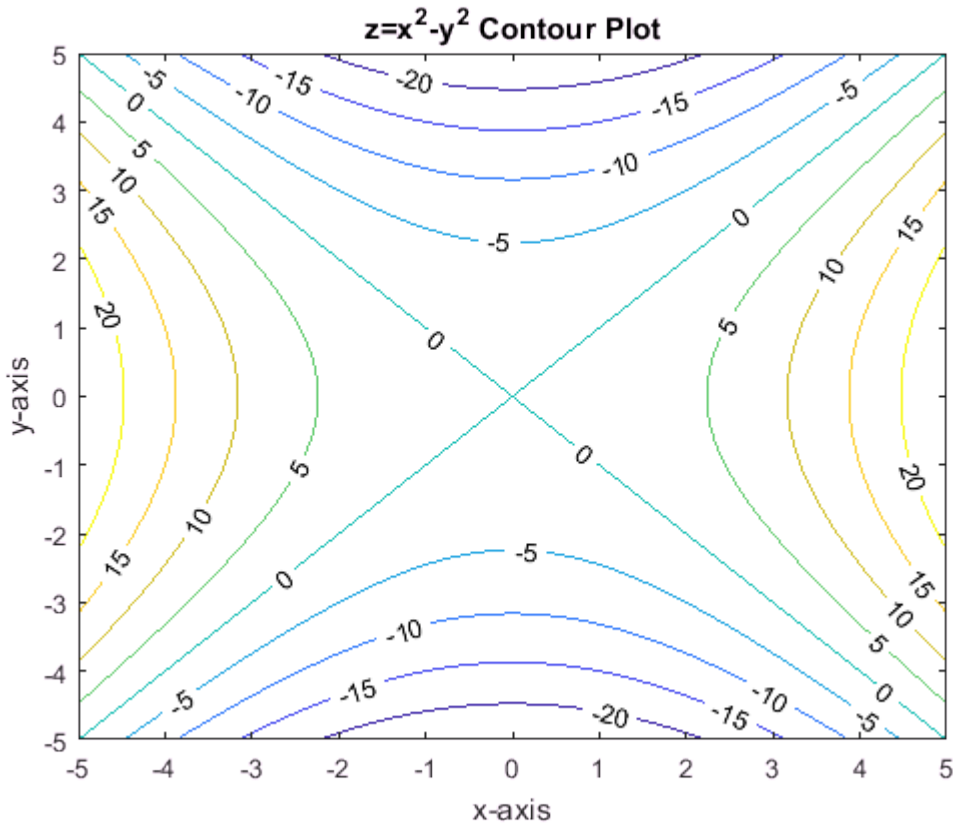


Matlab notes for HW #3

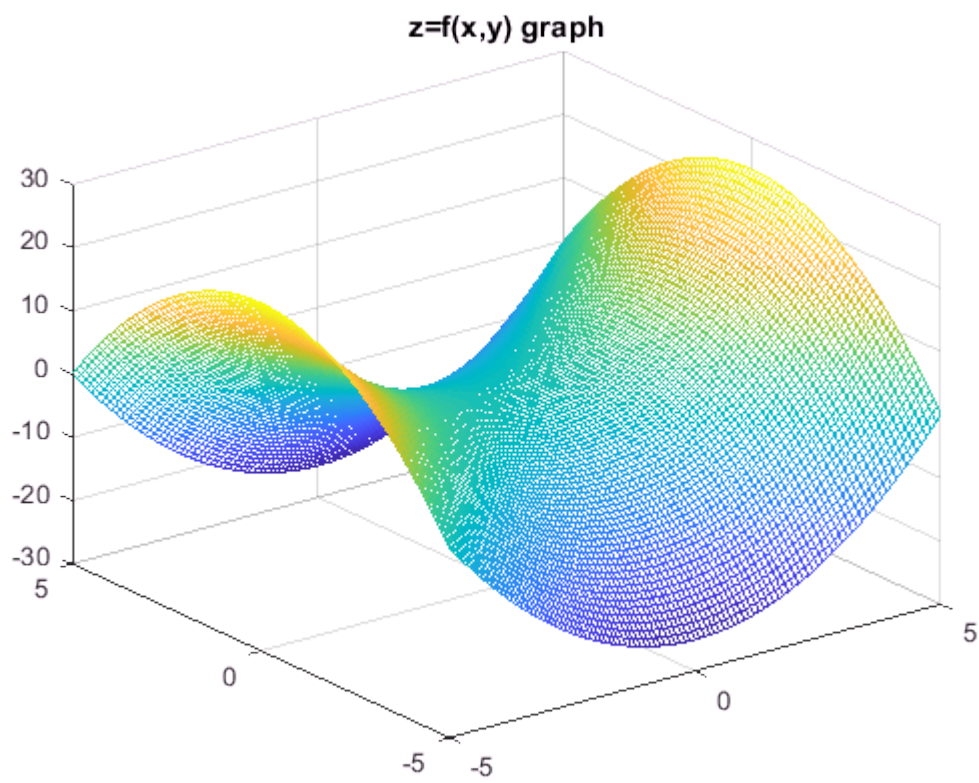
Here is a contour plot for $f(x,y)=x^2-y^2$.

```
X=-5:0.1:5; Y=-5:0.1:5; [x,y]=meshgrid(X,Y); z=x.^2 - y.^2;  
v=[-20,-15,-10,-5,0,5,10,15,20];  
figure; contour(x,y,z,v,'showtext','on'), title('z=x^2-y^2 Contour Plot')  
xlabel('x-axis'), ylabel('y-axis')
```



Here are graphs of $f(x,y)$ and the negative outputs of $f(x,y)$.

```
figure; mesh(x,y,z), title('z=f(x,y) graph')
```



```
figure; surf(x,y,min(z,0)), title('min(f(x,y), 0)'), view([-58.8 18.3])
```

