Exercise 1: Morphology Part A

-1 = background, 1 = object pixel

Orig	Original														
-1	-1	1	1	1	1	1	-1	-1	1						
-1	1	1	1	-1	1	1	1	-1	1						
1	1	1	-1	1	-1	1	1	1	1						
1	1	1	1	1	1	1	1	1	1						
1	-1	1	-1	-1	1	1	1	-1	1						
1	-1	1	-1	-1	1	-1	-1	1	1						
1	1	1	1	1	1	-1	1	1	1						
-1	-1	1	1	1	-1	1	1	1	1						
1	1	1	1	-1	1	1	1	-1	-1						
1	1	1	1	1	1	1	1	-1	-1						

Erosion - First Element										
-1	1	-1	First Element							
1	0	1								
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	
-1	-1	1	-1	-1	-1	1	-1	-1	-1	
-1	1	-1	-1	-1	-1	-1	1	-1	-1	
-1	1	1	-1	1	-1	1	1	1	-1	
-1	-1	-1	-1	-1	-1	1	-1	-1	-1	
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	
-1	-1	1	-1	-1	-1	-1	-1	1	-1	
-1	-1	-1	1	-1	-1	-1	1	1	-1	
-1	-1	1	-1	-1	-1	1	-1	-1	-1	
-1	1	1	1	-1	1	1	-1	-1	-1	

Dila	Dilation - Second Element									Closing (dilation->erosion) - Second Element											
0	1	Second Element																			
1	1																				
1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	-1	
1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	-1	
1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	-1	
1	1	1	1	1	1	1	1	1	1		1	1	-1	-1	1	1	1	1	1	-1	
1	1	1	-1	1	1	1	1	1	1		1	1	-1	-1	1	1	1	1	1	-1	
1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	-1	
1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	-1	
1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	-1	-1	-1	
1	1	1	1	1	1	1	1	-1	-1		1	1	1	1	1	1	1	-1	-1	-1	
1	1	1	1	1	1	1	1	-1	-1		-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	

Part B

Before Erosion										After Erosion									
1	1	1	1	-1	-1	1	1	1			-1	-1	-1	-1	-1	-1	-1	-1	-1
1	1	1	1	1	1	1	1	1			-1	1	1	1	-1	-1	1	1	-1
1	1	1	1	1	1	1	1	1			-1	1	1	1	-1	-1	1	1	-1
1	1	1	1	-1	-1	1	1	1			-1	-1	-1	-1	-1	-1	-1	-1	-1
Mas	sk																		
-1	1	-1																	
1	0	1																	

Exercise 2: Hausdorff Distance Part A

H(S1,S2) = max(h(S1,S2), h(S2,S1)) = sqrt(13)

Part B

 $H(S1,S2) = max(h(S1,S2), h(S2,S1)) \sim 2.17$

Exercise 3: Edge Detection

Todo