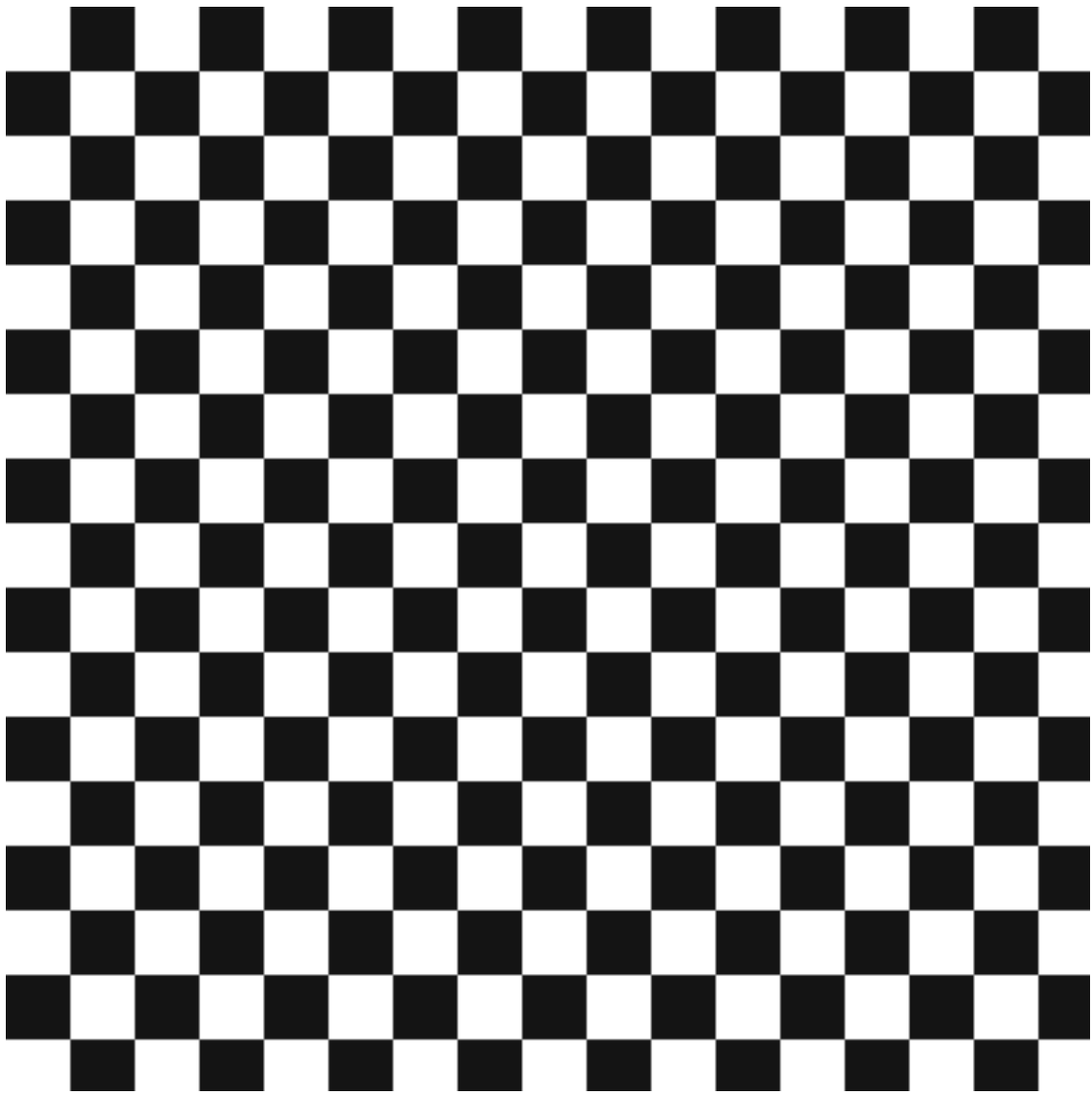
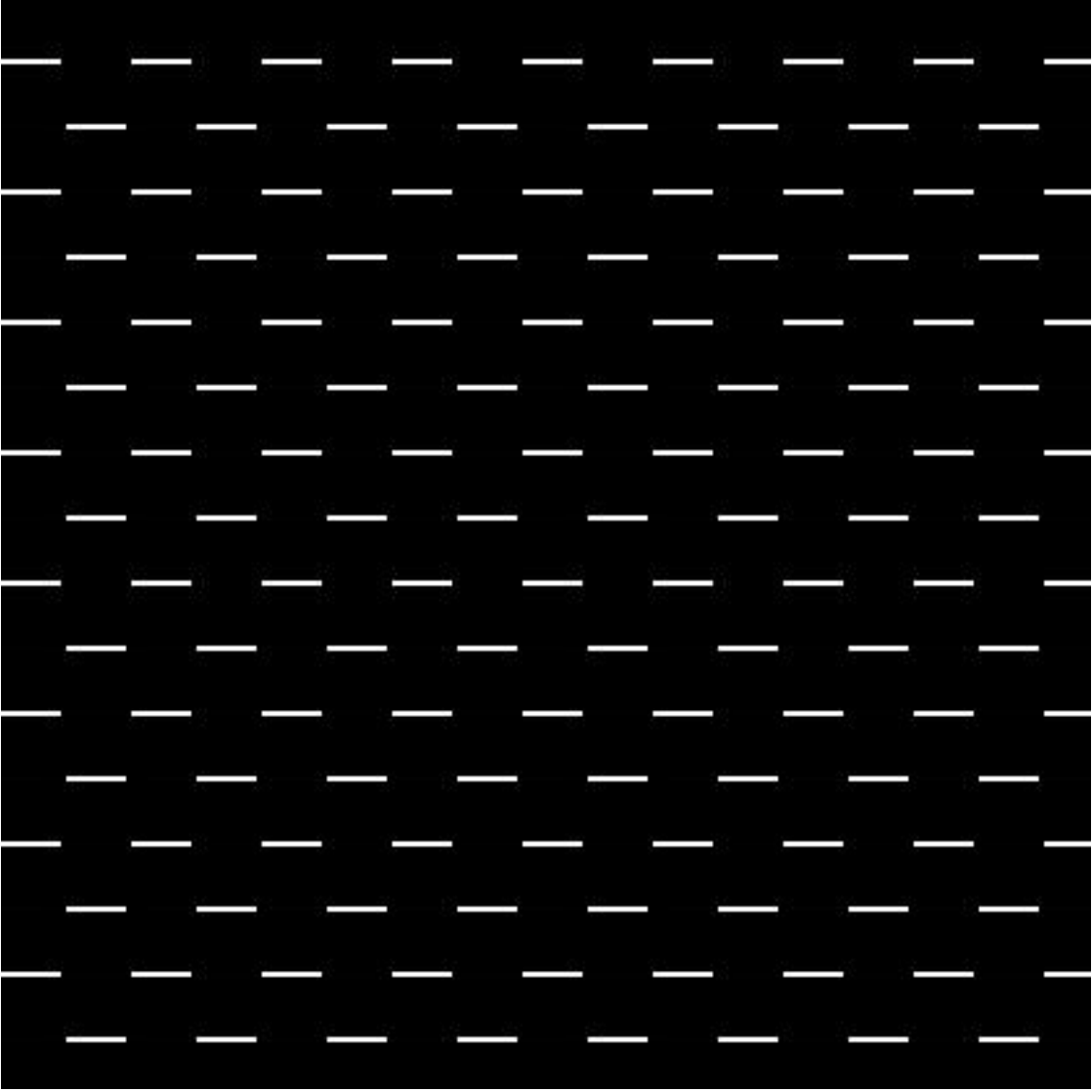
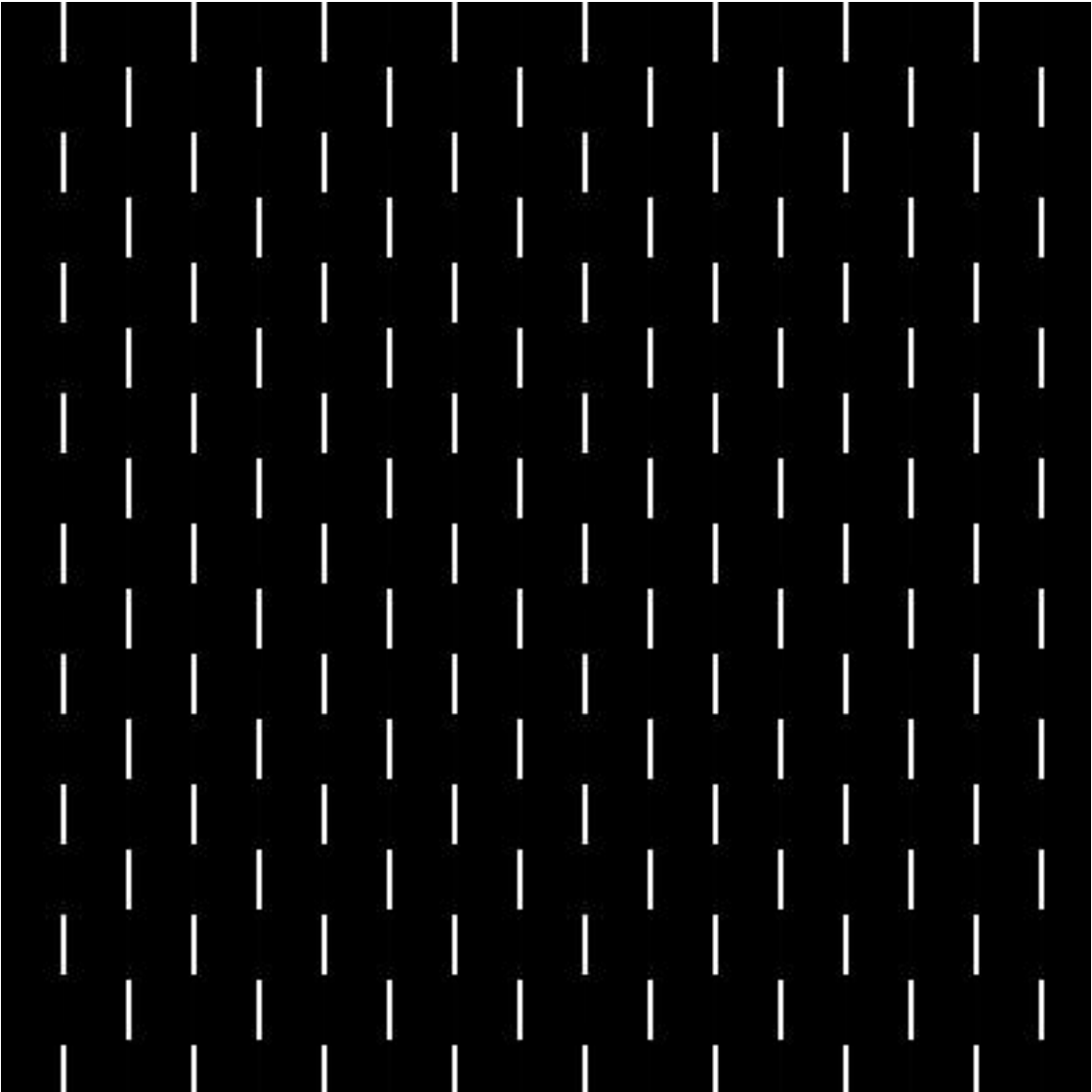
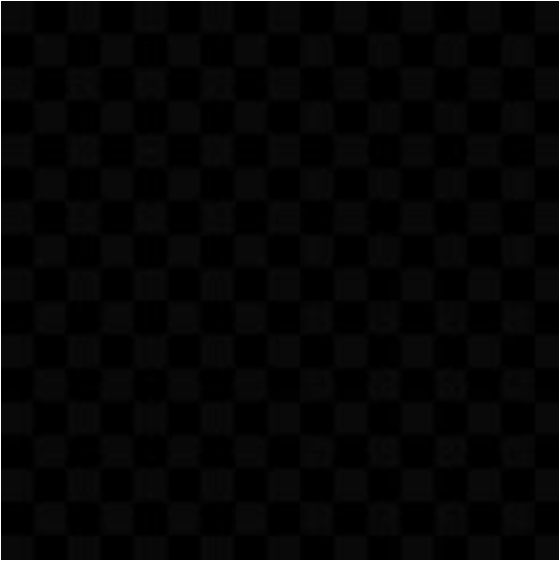


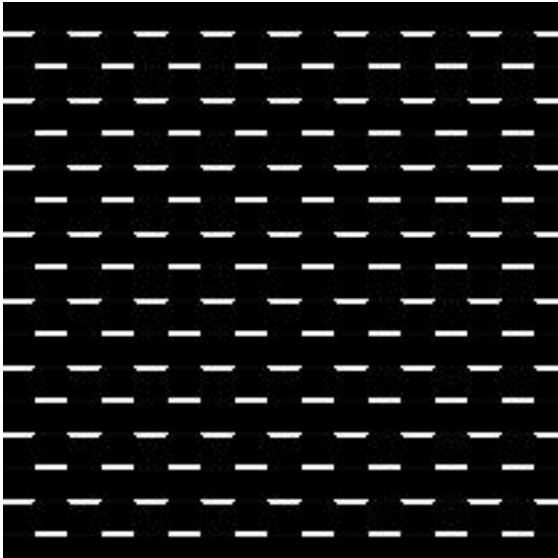
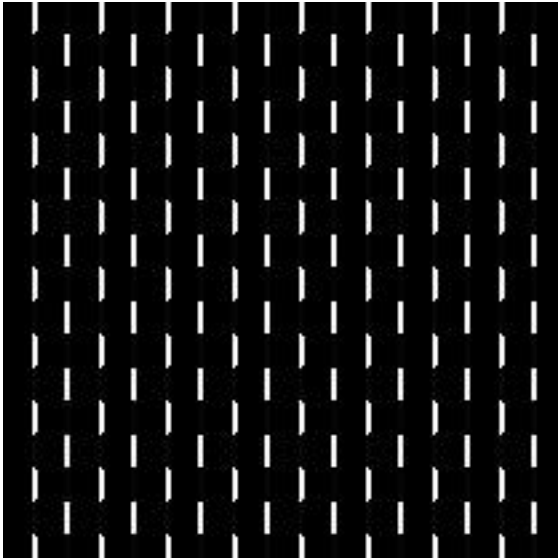

Homework 1



Part A Output Images in grayscale

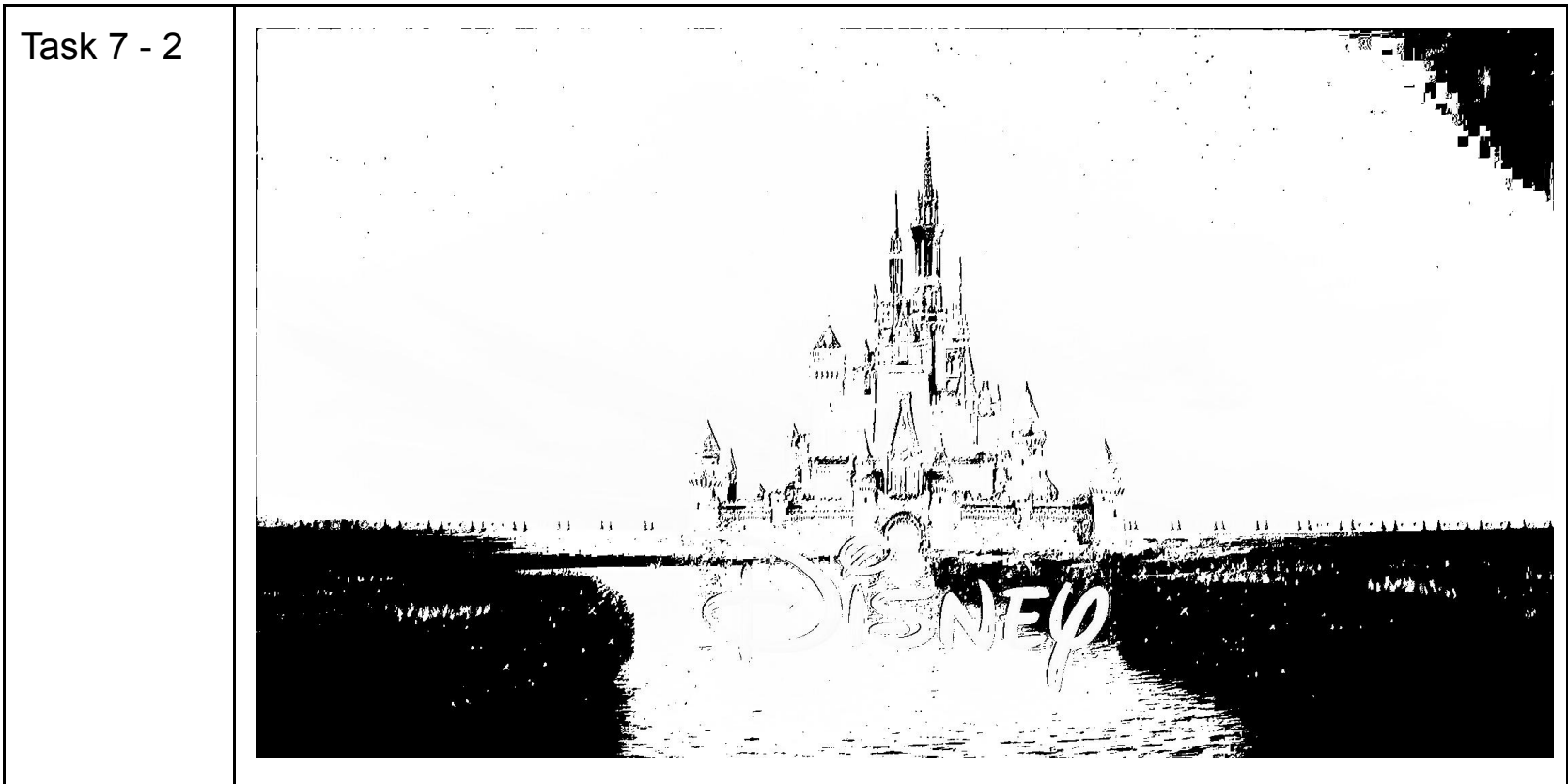
Input Image	
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Task 1	
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Task 2	
Task 3	

Task 4	
Task 5	
Task 6	<div>Original Image:</div>  <div>Output Image without normalization:</div>

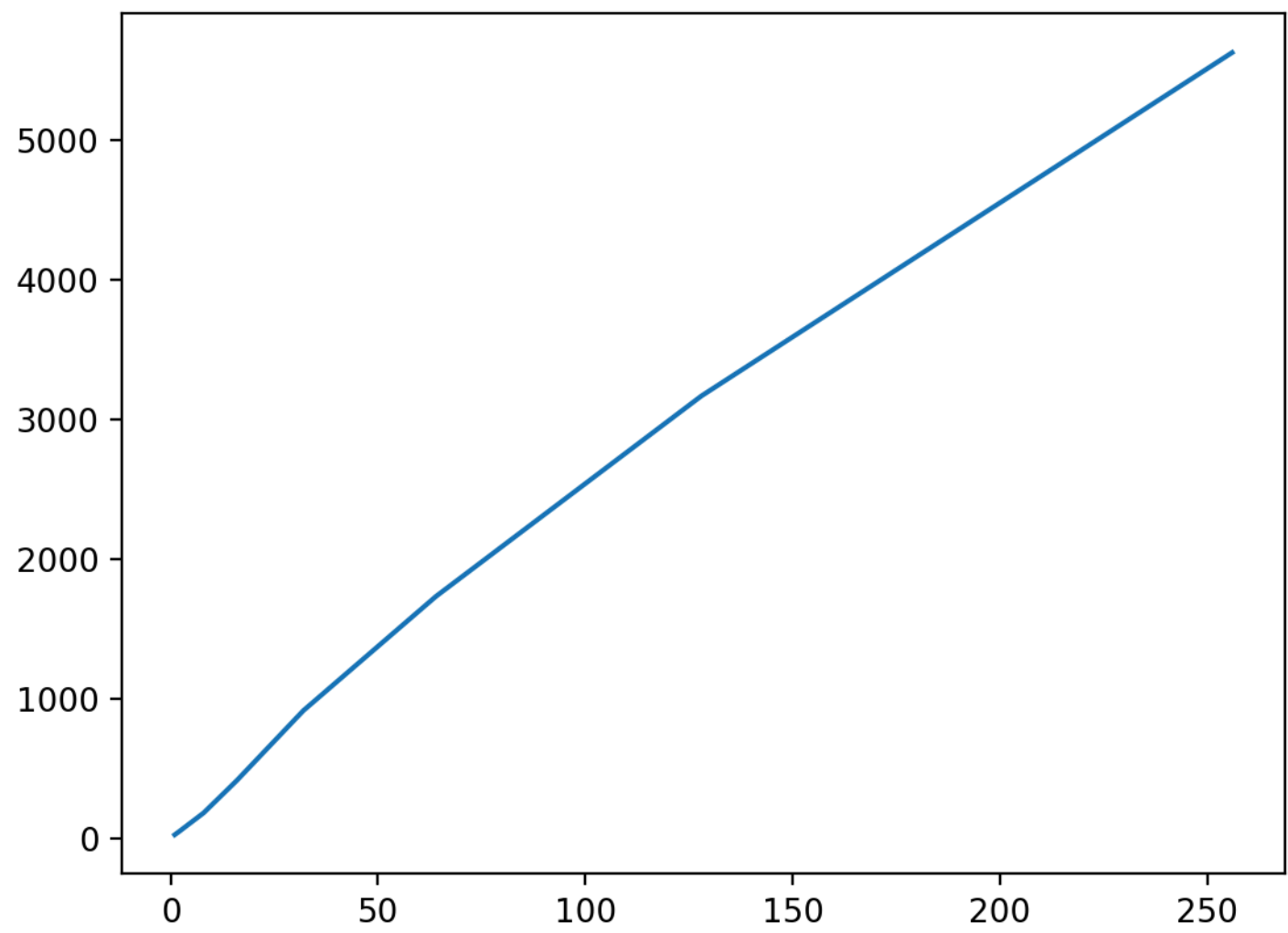
	
Task 7 - 1	



Part B

It take too long to generate the full result. Therefore, I have collected data up to 2^8.

O_Channel	Time Taken (seconds)
1	23.515645027160645
2	45.18569993972778
4	90.43279504776001
8	180.75114512443542
16	412.9355580806732
32	912.0210089683533
64	1730.588632106781
128	3165.599992990494
256	5625.0197241306305



Part C

Kernel_Size	Number of Operations
3	145899036
5	17127559152
7	4494743433180
9	2105236735781184
11	1543593200336927100

