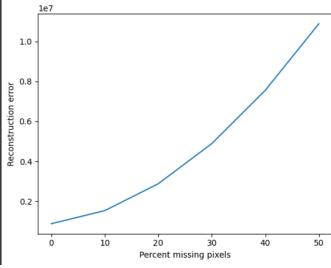
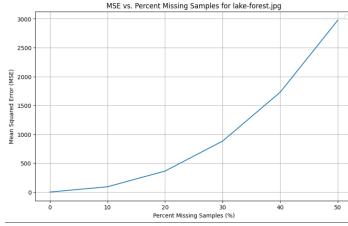
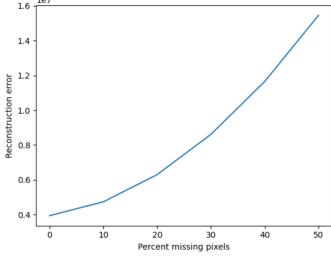
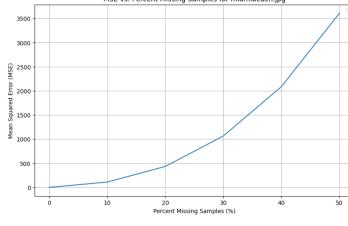
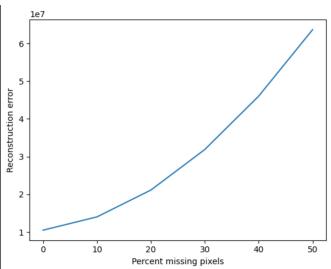
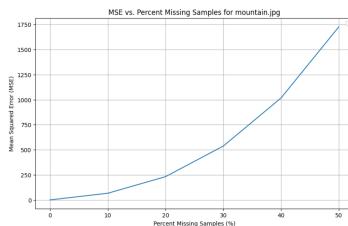


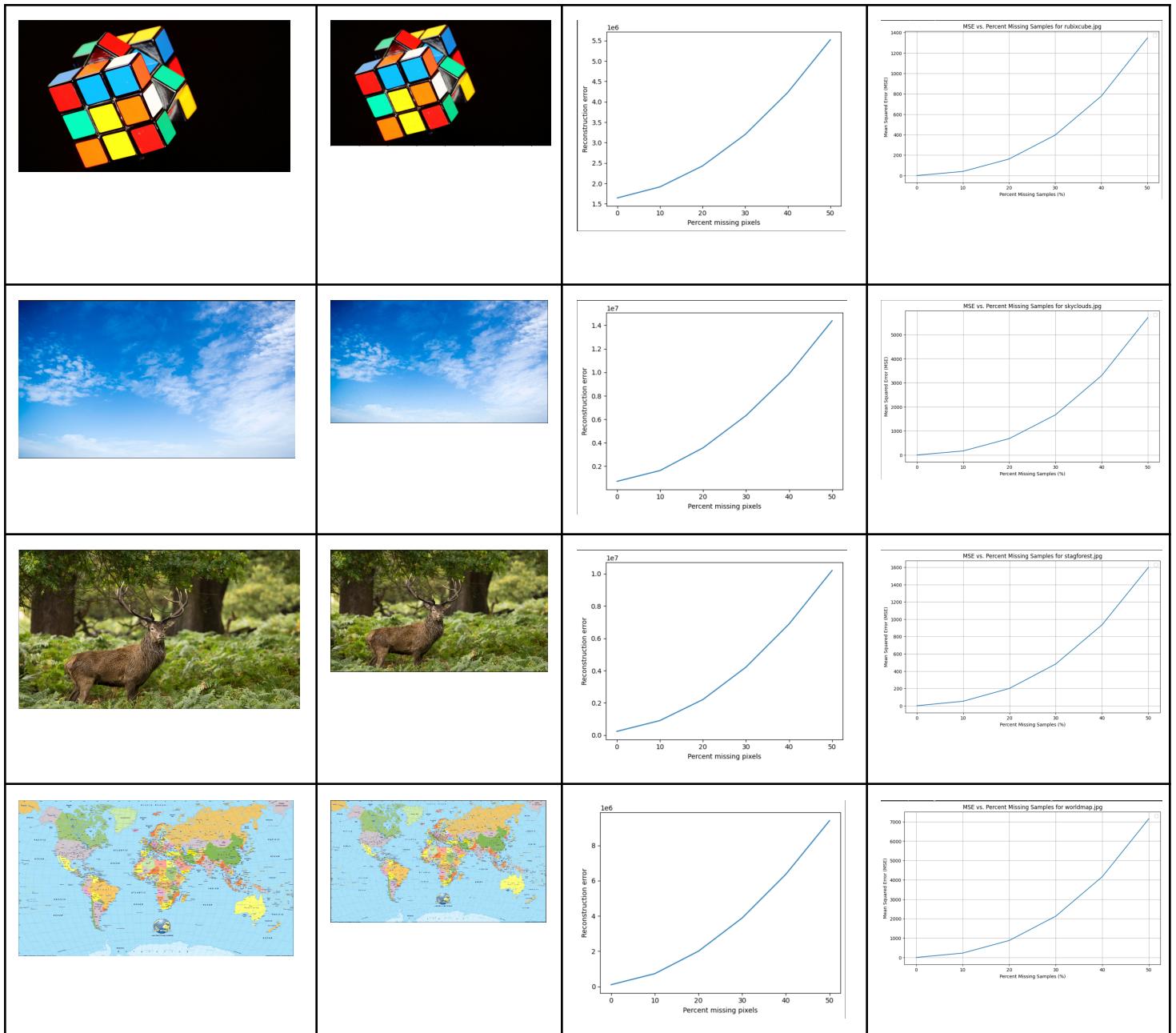
## Part 3

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### 1) Comparison

Original Image	Reconstructed Image	Error vs % graph	MSE vs % graph
			
			
			



2) The image with higher errors will depend on the specific content and structure of the images as well as the random pixel removal process.

According to regular Reconstruction error -

Highest Error => Mountains.jpg

Lowest Error => Rubixcube.jpg

According to MSE Reconstruction error -

Highest Error => Worldmap.jpg

Lowest Error => Rubixcube.jpg

The plots may differ due to differences in image content and how the missing pixels are distributed.

3) From the quantitative analysis, you can qualitatively describe that images with more complex and detailed structures may have higher errors because the reconstruction algorithm has to fill in more missing information, potentially leading to more artifacts. Images with simpler structures may have lower errors because the missing information can be interpolated more effectively. However, this is a general observation, and the actual results can vary based on the specific images and the random removal process.

4) Extra Credit:-

I think this should be the formula to calculate error

Estimated Error =  $(x/100) * (\text{Average Pixel Value}) * (\text{Total Number of Pixels})$