

Numerical Linear Algebra with Applications S'25
HW 6
Due April 14

1. 10.3
2. 10.6 (c), (d) Note: you can use results in part (a) and (b).
3. (MATLAB) Two images were mixed producing the images pic1.jpg and pic2.jpg (these are available on Piazza). You are to use an ICA to separate the images. As mentioned in class, an ICA finds multiple solutions. What you are to do is find the pair that is closest to the two originals, and identify what the original images are. You should also make an effort to find the best separation possible (try different vector norms). What to hand in: copies of the two separated images along with an explanation why they are, most likely, the correct versions. Also, you need to explain why you think they are the best possible separation.

Extra Credit: on next page