

1. Problem 4.11.
2. Problem 4.13.
3. Exercise 9.27 (page 269; see definitions on page 263).
4. Problem 9.8.
5. A point in \mathbb{R}^n may be viewed as a vector whose tail is at the origin. Show that in the Johnson-Lindenstrauss Theorem, the angle between each pair of vectors is also approximately preserved. Quantify your result.