

Hints for homework problems

Math 20610, Spring 2026
Third assignment, due 2/6/26

1. §2.1 # 8. For inverses, see class notes and see the material in the book on page 43, around Figure 2.
2. §2.1 # 15. You can use the result of problem # 13 even though it was not assigned. You don't have to prove # 13.
3. §2.1 # 33. What vector arises from \vec{e}_1 after a 45° rotation, and same question for \vec{e}_2 .
4. §2.1 # 38. Write $T\left(\begin{bmatrix} 2 \\ -1 \end{bmatrix}\right)$ in terms of \vec{v}_1 and \vec{v}_2 .