

MATH 431/531 FALL 2021
HOMEWORK 7
DUE NOVEMBER 10, 2021.
INSTRUCTOR: ROBERT LIPSHITZ

Problems:

- (1) Lee, Exercise 3.55. It's okay to solve this just for $X \vee Y$, not a general, possibly infinite wedge sum $\bigvee_{\alpha} X_{\alpha}$. (The infinite case isn't any harder, but maybe the notation is more confusing.)
- (2) Lee, Exercise 3.61.
- (3) Lee, Problem 3-12.
- (4) Lee, Problem 3-13. (A left inverse to $f: X \rightarrow Y$ is a map $g: Y \rightarrow X$ so that $g \circ f = Id_X$.)
- (5) Lee, Problem 3-16.

Challenge problems (required for Math 531, optional for 431):

- (6) Lee, Problem 3-14.
- (7) Lee, Problem 3-18.

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