

MTH 510

Homework 7

Due: March 28, 2019

Chapter 3: 20, 21, 24

Chapter 10: (read the "Change of Basis" section) 3, 4

Chapter 4: (read the entire chapter) 5

Additional homework (suggestion: do these before the chapter homework):

1. For $v = (3, 2, 4) \in \mathbb{R}^3$, find
 - (a) $\mathcal{M}(v)$
 - (b) $\mathcal{M}(v, ((1, 0, 0), (1, 1, 0), (1, 1, 1)))$
2. For $v = 5 + 2x + 3x^2 \in \mathcal{P}_2(\mathbb{R})$, find
 - (a) $\mathcal{M}(v)$
 - (b) $\mathcal{M}(v, (1, x - 1, (x - 1)(x - 2)))$