

Linear Algebra – Math 205 Exercise Set of Lect 21 (SPRING 2023)

Date: 21/03/2023

## Homework 5b: Exercise Set 6.2 & 6.3 Solution

Question 06(a)

Solution:  $p = -1 + 5x + 2x^2, q = 2 + 4x - 9x^2$  $\theta = \cos^{-1} \left( \frac{p \cdot q}{||p||||q||} \right) = \cos^{-1} \left( \frac{-1*2 + 5*4 + 2*(-9)}{\sqrt{(-1)^2 + 5^2 + 2^2} \sqrt{2^2 + 4^2 + (-9)^2}} \right)$ 

Question 17

Solution: See solution manual

Question 18

**Solution:** Similar to question 17.

Question 25

Solution: See solution manual.

Question 26

**Solution:** Similar to question 25.

Question 27

Solution: See solution manual.

Question 29

Solution: See solution manual.