



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

### Question 06(a)

**Solution:**  $p = -1 + 5x + 2x^2, q = 2 + 4x - 9x^2$

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

### 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.