1. Perloff, third edition: question 21 page 45

2. Perloff, third edition: question 2 page 70

3. Perloff, third edition: question 7 page 71

4. Perloff, third edition: question 8 page 71
5. Using the formula of elasticity, if the equation for the demand for cups is \( Q = 200 - 10p \), what is the elasticity of demand when \( p = 5 \)? and when \( p = 15 \)?

6. Suppose demand for TV is estimated to be \( Q = 3000 - 5p + 10p_x - 2p_z + 0.1m \). If \( p = 80 \), \( p_x = 50 \), \( p_z = 150 \), and \( m = 30,000 \); answer the following questions:
   1. What is the price elasticity of demand?
   2. What is the cross price elasticity with respect to commodity \( x \)? Give an example of what commodity \( x \) might be.
   3. What is the cross elasticity with respect to commodity \( z \)? Give an example of what commodity \( z \) might be.
   4. What is the income elasticity?