1. Suppose the inverse demand curve is \( p(Q) = 1 - Q \), and that there are \( n \) Cournot firms, each with marginal cost \( c \) selling in the market.
   a. Find the Cournot equilibrium price and quantity
   b. Determine the gross profits for each firm

2. What formula from the Cournot model is used in antitrust analysis? How is it used?

3. Consider \( n \) identical Cournot firms in equilibrium.
   a. Show that the elasticity of market demand satisfies \( \epsilon > 1/n \).
   b. Is this consistent in the case when \( n = 1 \) (monopoly)?

4. Describe how a principal would go about hiring agents who are willing to take risks.