Economics C50 Handout 2: Dominant Firm Price Leadership

First, construct the Residual Demand Curve from the Market Demand Curve and the Supply Curve of the Competitive Fringe:

\[ D^R(p) = D(p) - S^f(p). \]

Second, construct the Residual Marginal Revenue Curve, \( MR^R \). In the linear case, this is a straight line with the same vertical intercept as the Residual Demand Curve, but with twice the (negative) slope. (Remember to invert the demand curve first, so that price is on the left: i.e., \( P = P(Y) \).)

Next, find the dominant firm’s optimal output level, \( Y^D \), at the intersection of the Residual Marginal Revenue Curve and the dominant firm’s Marginal Cost Curve:

\[ MR^R(Y^D) = MC^D(Y^D). \]

(Remember, the equation of \( MC^D(Y^D) \) is the inverse of the supply curve \( Y(p,n) \) of the plants operated by the dominant firm.)

Finally, find the dominant firm’s profit maximizing price from the height of the Derived Demand Curve at quantity \( Y^D \). (NOT FROM THE MARKET DEMAND CURVE!)