# Stackelberg Competition — Practice Problems

## ECON 326 — Spring 2023

Return to the example from lessons 2.2 and 2.3: Firm 1 and Firm 2 have a constant $MC = AC = 8$. The market (inverse) demand curve is given by:

$$P = 200 - 2Q$$
$$Q = q_1 + q_2$$

1. Suppose Firm 1 is the Leader and Firm 2 is the follower. Find the Stackelberg Nash Equilibrium quantity for each firm. Hint, the Cournot reaction functions you found before were:

$$q_1^\star = 48 - 0.5 * q_2$$
$$q_2^\star = 48 - 0.5 * q_1$$

2. Find the market price.

3. Find the profit for each firm. Compare their profits under Stackelberg competition to their profits under Cournot competition (from lesson 2.2).