

(b) Find the Stackelberg equilibrium firm outputs

Sol Assume that firm 1 is the Stackelberg

$$Q_1 = 112 - \frac{1}{4} Q_2$$

$$P = 448 - (112 - \frac{1}{4} Q_2) - Q_2$$

$$= 336 - \frac{3}{4} Q_2$$

$$TR_2 = P \cdot Q_2 = (336 - \frac{3}{4} Q_2) Q_2$$

$$= 336 Q_2 - \frac{3}{4} Q_2^2$$

$$MR_2 = 336 - \frac{3}{2} Q_2$$

$$MR_2 = MC_2$$

$$336 - \frac{3}{2} Q_2 = 2 Q_2$$

$$336 = \frac{7}{2} Q_2$$

$$Q_2 = 0.0104 \quad \#$$

$$Q_1 = 112 - \frac{1}{4} (0.0104)$$

$$Q_1 = 111.99 \quad \#$$

(4) (write about 0.5 page) Find 1 example of an industry that has a dominant firm. Describe what this industry is, which firm is the dominant firm, which firms are fringe firms (name the ones that you

Sol I choose the 'personal computers' industry. The Personal Computers or we known as 'PC', is a digital computer designed for use by only one person at a time that consists CPU, RAM, ROM, and various peripheral devices, including a display screen, keyboard and mouse.

The dominant firm of this industry is Apple and the fringe firm is Intel.