25. Correct. The answer is false. The reaction functions of Firm 1 and Firm 2 are respectively,

Profit function for the two firms are:

$$\pi_1 = [200 - 2(Q_1 + Q_2)]Q_1 - 6Q_1^2$$
$$\pi_2 = [200 - 2(Q_1 + Q_2)]Q_2 - (5Q_2 + 10)$$

First order condition for profit maximization:

$$\partial\pi_1/\partial Q_1 = 200 - 16Q_1 - 2Q_2$$
$$\partial\pi_1/\partial Q_1 = 0$$
$$Q_1 = 12.5 - 0.125Q_2$$
$$\partial\pi_2/\partial Q_2 = 185 - 2Q_1 - 4Q_2$$
$$\partial\pi_2/\partial Q_2 = 0$$
$$Q_2 = 46.25 - 0.5Q_1$$

Solving for Q_1 and Q_2, $Q_1 = 7.168$ and $Q_2 = 42.66$ units, and price equals to

$$P = 200 - 2(7.168 + 42.66) = 100.34$$
$$\pi_1 = 100.34 * 7.168 - 6 * 7.168^2 = \$410.96$$
$$\pi_2 = 100.34 * 42.66 - (5 * 42.66 + 10) = \$4057.20, \text{ Therefore,}$$
$$\pi_2/\pi_1 = 4057.20/410.96$$
$$\pi_2/\pi_1 = 9.87$$