

2 A.1)
 $P = a - bQ$
 $Q = \frac{a - P}{b}$

Point-PEB: $\frac{\Delta Q}{\Delta P} \cdot \frac{P}{Q}$
 $\frac{\Delta Q}{\Delta P} = \frac{a - bQ_0}{a - P_0}$
 $= \frac{\Delta Q}{\Delta P} = \frac{a - b(\frac{a - P}{b})}{a - P}$
 $= \frac{\Delta Q}{\Delta P} = \frac{a - b(\frac{a - P}{b})}{a - P} \cdot (\frac{a - P}{b})$
 $\frac{\Delta Q}{\Delta P} = a - b$
 Point-PEB = $-b \times a - b$
 $= -ab - b^2$

$P_0 = a - cQ_0$
 $Q_0 = \frac{a - P_0}{c}$
 Point-PEB = $\frac{\Delta Q}{\Delta P} \cdot \frac{P}{Q}$
 $= \frac{\Delta Q}{\Delta P} = \frac{a - P_0}{c}$
 $\frac{\Delta Q}{\Delta P} = \frac{a - P_0}{c} \cdot (\frac{a - P_0}{c})$
 Point-PEB = $-ac + c^2$

2. A.2)
 ci)

$p = c + dQ_0$ $d_1 = 2$ $c = 0$
 $Q_0 = \frac{c - P}{d}$ $d_0 = 1$ $c = 0$

$\Delta Q = \frac{1 - P}{2} - \frac{1 - P}{1} = \frac{1 - P - 2 + 2P}{2}$

$= \frac{-1 + P}{2}$
 $\frac{1 - P}{1}$
 $= \frac{-1 + P}{2} \times \frac{1}{1 - P}$
 $= \frac{-1}{2}$

$\Delta P = 1 + 2(Q_0) - 1 + 1(Q_0) = \frac{0}{1 - (1 - P)}$
 $= \frac{1}{2 - P}$

$1 + 2(Q_1) - 1 + 1(Q_0)$
 $1 + 2(\frac{1 - P}{2}) - 1 + 1(\frac{1 - P}{1})$
 $= 1 - 1 + P$

$\frac{\Delta Q}{\Delta P} = \frac{1}{2} \cdot \frac{1}{2 - P}$
 $= \frac{1}{2} \times \frac{1 - P}{1}$
 $= \frac{1 - P}{2}$

ii) $p = c + dQ$ $d_1 = 2$ $c = 0$
 $Q_0 = \frac{c - P}{d}$ $d_0 = 1$ $c = 0$
 $\Delta Q = \frac{Q_1 - Q_0}{Q_0} = \frac{0 - P}{2} - \frac{0 - P}{1}$
 $\frac{\Delta Q}{\Delta P} = 0$

iii) $p_0 = c + dQ$ $d_1 = 2$ $c = -1$
 $Q_0 = \frac{c - P}{d}$ $d_0 = 1$

$\Delta Q = \frac{-1 - P}{2} - \frac{-1 - P}{1}$
 $= \frac{-1 - P - 2 + 2P}{2}$
 $= \frac{-1 - P + 2 + 2P}{2}$
 $= \frac{1 + P}{2}$
 $= \frac{1 + P}{2} \times \frac{1}{1 - P}$
 $= \frac{1}{2}$

$\Delta P = -1 + 2Q - (-1 + Q)$
 $= \frac{-1 + Q}{-1 + Q}$
 $= \frac{-1 + Q}{-1 + Q}$
 $\frac{\Delta Q}{\Delta P} = \frac{1}{1 - P}$
 $= \frac{1}{2} \times 1$