

## 8.4 Partnership - Inseparable Activities - Best Responses

Tuesday, September 15, 2020 10:24 PM

$$V = e_1 + e_2 + \frac{1}{4}e_1e_2$$

$$C_1 = \frac{1}{2}e_1^2 \quad C_2 = \frac{1}{2}e_2^2$$

$$\pi_1 = \frac{1}{2}(e_1 + e_2 + \frac{1}{4}e_1e_2) - \frac{1}{2}e_1^2$$

$$\downarrow$$

$$= \frac{1}{2}(e_1 + \bar{e}_2 + \frac{1}{4}e_1\bar{e}_2) - \frac{1}{2}e_1^2$$

$$\sum_i p(x = x_i) \cdot x_i = E(x)$$

$$\int_0^{\infty} \theta_2(v) \cdot v dv = E(e_2) = \bar{e}_2$$

↑  
From P<sub>1</sub> view



$$\pi_1 = \frac{1}{2}e_1 + \frac{1}{2}\bar{e}_2 + \frac{1}{8}e_1\bar{e}_2 - \frac{1}{2}e_1^2$$

$$\frac{d\pi_1}{de_1} = \frac{1}{2} + \frac{1}{8}\bar{e}_2 - e_1 = 0 \rightarrow e_1 = \frac{1}{2} + \frac{1}{8}\bar{e}_2$$

$$e_2 = \frac{1}{2} + \frac{1}{8}\bar{e}_1$$