

$$1. \quad i^{(2)} = 4\% = 0.04$$

$$i = \left(1 + \frac{i^{(2)}}{2}\right)^2 - 1 = \left(1 + \frac{0.04}{2}\right)^2 - 1 = 0.0404$$

$$1+i = \left(1 + \frac{i^{(m)}}{m}\right)^m$$

$$\text{Bruce: } 100 \cdot (1+i)^{7.25}$$

$$\text{Peter: } 100 \cdot (e^{\delta})^{7.25}$$

$$100(1+i)^{7.25} = 100 \cdot (e^{\delta})^{7.25}$$

$$(1+i)^{7.25} = (e^{\delta})^{7.25}$$

$$1+i = e^{\delta}$$

$$1+0.0404 = e^{\delta}$$

$$\ln(1.0404) = \delta$$

$$\delta = 0.039605 \stackrel{\times 100\%}{\approx} 3.96\%$$

(C)