Subject: Session 38

Year. Month. Date. ( )

1.

$$\nabla T = \langle 2x, 4y, 4z \rangle$$

$$\nabla T|_p = \langle 2, 4, 4 \rangle = \vec{v}$$

$$\frac{dT}{dP}\bigg|_{\vec{v}} = \nabla T|_p \cdot \frac{\vec{v}}{\|\vec{v}\|} = \langle 2,4,4 \rangle \cdot \langle \tfrac{2}{6}, \tfrac{4}{6}, \tfrac{4}{6} \rangle$$

$$= \tfrac{4}{6} + \tfrac{16}{6} + \tfrac{16}{6} = \tfrac{36}{6} = 6$$

2. $\dfrac{-0.3}{\Delta s} = -3 \rightarrow \Delta s = 0.1$

PAPCO