Q1. This is quite a standard question, involving an inline equation

$$\sum_k (-D)^k \frac{\partial}{\partial u^k},$$

and several remarkable subparts:

a) A first;

b) A second.

PROOF. An elementary proof. a) is obvious, as we have

$$\begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix} \cdot \frac{a}{b} \neq \pi$$

and b) follows suit ($\clubsuit \Rightarrow \blacklozenge$). ■

Q2. A trivial consequence.

PROOF. What a joke; refer to Q 1. ■

Remark 1: The headers are persistent