PROOF OF FORMULA 4.229.1

$$\int_0^1 \ln(\ln 1/x)dx = -\gamma$$

Entry **4.229.4** states that

$$\int_0^1 \ln(\ln 1/x)\,(\ln 1/x)^{\mu-1}\;dx = \psi(\mu)\Gamma(\mu)$$

The result now follows from the values $\psi(1) = -\gamma$.