PROOF OF FORMULA 3.475.2

$$\int_0^\infty \left[e^{-x^{2^n}} - \frac{1}{1+x^2} \right] \frac{dx}{x} = -\frac{\gamma}{2^n}$$

In the proof of entry 3.475.1 the formula

$$\int_0^\infty \left[e^{-x^a} - \frac{1}{1+x^b} \right] \frac{dx}{x} = -\frac{\gamma}{a},$$

was established. The current integral corresponds to $a = 2^n$ and $b = 2$.