2013 **9** What is the solution of $5^x = 4$? **1**

(A) $x = \dfrac{\log_e 4}{5}$ (B) $x = \dfrac{4}{\log_e 5}$ (C) $x = \dfrac{\log_e 4}{\log_e 5}$ (D) $x = \log_e \left(\dfrac{4}{5}\right)$

C

$$5^x = 4$$
$$\log_e 5^x = \log_e 4$$
$$x \log_e 5 = \log_e 4$$
$$x = \frac{\log_e 4}{\log_e 5}$$

State Mean: **0.85**