Answer on Question # 82916, Math / Combinatorics | Number Theory

Question 1. At least how many 8's are needed after 1 to make a number which can be expressed as x^{64} , where x is an integer?

Proof. $x^{64} = a^2$. Last digit of a^2 belong to $\{0, 1, 4, 5, 6, 9\}$. So we need zero 8's after 1 and x = 1.

Answer provided by https://www.AssignmentExpert.com