1. Find a Fermat witness for the compositeness of each integer n

$$(a)\ n = 403 \qquad (b)\ n = 561 \qquad (c)\ n = 294\,409$$

2. For each integer n in #1, what proportion of natural numbers less than n are Fermat witnesses for the compositeness of n?

3. Do you think the number n is prime or composite?
   If you find that n is composite, what proportion of values less than n are Fermat witnesses?
   (a) $n = 56\,052\,363$
   (b) $n = 56\,052\,361$