

Answer the following questions:

1. Solve the congruence $4x \equiv 5 \pmod{9}$?
2. Use the Chinese Remainder Theorem to solve the system of congruences
$$x \equiv 3 \pmod{16}$$
$$x \equiv 7 \pmod{135}$$
3. Find $23^{1002} \pmod{41}$?
4. Find the last digit of 7^{2013} ?
5. The ISBN-10 of the sixth edition of Elementary Number Theory and Its Applications is 0-321-500Q1-8, where Q is a digit. Find the value of Q?