

# Elementary Number Theory: Fermat's Theorem

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## 1 Fermat's Little Theorem and Pseudoprimes

- **Fermat's little theorem:** Let  $p$  be prime and suppose that  $p$  does not divide  $a$ . Then  $a^{p-1} \equiv 1 \pmod{p}$ . *Proof:*

## 2 Wilson's Theorem