More of Fermat's Little Theorem, and Intro to Wilson's Theorem

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1. Prove Fermat's Little theorem using induction.
2. Let p be a prime. Prove that p divides $ab^p - ba^p$ for all integers a and b.
3. Consider the sequence $a_1, a_2, ...$ defined by

   $$a_n = 2^n + 3^n + 6^n - 1$$

   for all positive integers. Prove that 1 is the only positive integer that is relatively prime to every term of the sequence.
4. Tentukan sisa pembagian 65! dengan 67.
5. Tentukan sisa pembagian dari $20 \cdot 40 \cdot 60 \cdot 80... \cdot 340 \cdot 360$ oleh 19.