

2	$2025 + 47 - 2 = 2070 = 45 \times 46$ is divisible by 46.
	Assume that $2025^k + 47^k - 2$ is divisible by 46 for some positive integer k .
	Then $2025^{k+1} + 47^{k+1} - 2 = (2024 + 1)2025^k + (46 + 1)47^k - 2$
	is divisible by 46 because $2024 \times 2025^k + 46 \times 47^k = 46(44 \times 2025^k) + 46 \times 47^k$ is divisible by 46
	Hence, [by induction], true for every positive integer n .