Math 341: Classical Number Theory

Introduction to Number Theory Induction

1. Use proof by induction to show $6^n + 4$ is divisible by 5 for all $n \ge 1$.

2.	Do some computa	ation t	o first conjecture	the value	for the	blank,	then	use i	induction	to	prove
	your conjecture.	$8^{n} - 3$	\mathbb{B}^n is divisible by	for	all $n \ge$	1					

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Introduction to Number Theory Induction

1. Use proof by induction to show $2^{2n} - 1$ is divisible by 3 for all $n \ge 1$.

2.	Do some computa	ation to first	conjecture	the value for	the blank	, then us	se induction	to prove
	your conjecture.	$9^{n} - 2^{n}$ is 6	livisible by _	for all	$n \ge 1$			

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Introduction to Number Theory Induction

1. Use proof by induction to show 9^n+3 is divisible by 4 for all $n\geq 1$

2.	Do some computation to first conjecture the	value for the blank, the	n use induction to prove
	your conjecture. $5^n + 2 \cdot 11^n$ is divisible by _	$\underline{}$ for all $n \geq 1$	