beamer

0.2 Properties of the Integers

6. Prove the Well Ordering Property of $\mathbb{Z}$ by induction and prove the minimal element is unique.

   Theorem . *(Well Ordering of $\mathbb{Z}$) If A is any nonempty subset of $\mathbb{Z}^+$, there is some element $m \in A$ such that $m \leq a$, for all $a \in A$ (m is called the* minimal *element of A.*

   Proof. □

11. Prove that if d divides n then $\varphi(d)$ divides $\varphi(n)$ where φ denotes Euler's φ-function.

    Proof. □

0.3 $\mathbb{Z}/n\mathbb{Z}$: The Integers Modulo n

10. Prove that the number of elements of $(\mathbb{Z}/n\mathbb{Z})^\times$ is $\varphi(n)$ where ϖ denotes the Euler φ-function.

    Proof. □

11. Prove that if $\overline{a}, \overline{b} \in (\mathbb{Z}/n\mathbb{Z})^\times$, then $\overline{a} \cdot \overline{b} \in (\mathbb{Z}/n\mathbb{Z})^\times$.

    Proof. □

How did you get interested in math?
Answer Here

What are your goals for the course and for the semester?
Answer Here

Tell me about someone you met in this course. (This will require you to meet someone - preferably new!- in the course outside of class to strike up a conversation.)
Answer Here