You must show your work to get full credit.

- **1.** Give the precise definition of $a \equiv b \pmod{n}$.
- **2.** Let s_n be a sequence defined by

$$s_{n+1} = s_n + 2n + 5, \qquad s_0 = 0.$$

Use induction to prove $s_n = n(n+4)$