Please work on these problems and be prepared to share your solutions with classmates in class next week. Assignments will not be collected for grading.

Readings
Read sections 11.8 of Schaum’s Outline of Discrete Mathematics.
Read section 6.7 of Discrete Mathematics Elementary and Beyond.

Problems
(1) Find all Natural numbers between 1 and 50 that are congruent to 4 (mod 11).
(2) Find two Natural numbers $a$ and $b$ such that $2a \equiv 2b \pmod{6}$, but $a \not\equiv b \pmod{6}$.
(3) Prove that if $a \equiv b \pmod{m}$ and $c \equiv d \pmod{m}$ then $a - c \equiv b - d \pmod{m}$.
(4) Write out each of the 5 residue classes (mod 5) for integers in the range -10 to 10.