Chapter 10.3-4
Wednesday, Week 7

## Recap

Draw:

1. $K_{4}$
2. $C_{4}$
3. $\overline{C_{4}}$
4. A graph with 6 vertices where every vertex has degree 1 .
5. $K_{3,3}$
6. How many (labeled) graphs on 3 vertices are there?

## Graph Isomorphisms

There are three distinct (up to isomorphism) graphs with 4 vertices and 3 edges. Find all of them.

## Walks, Paths, and Cycles

Draw a directed graph on the vertex set $\{1,2,3,4,5,6\}$ where $(u, v)$ is an $\operatorname{arc}$ if $u \equiv 2 v(\bmod 7)$.

Go to a random page on Wikipedia and click on the first link of the article. Continue to do so for each new page you come to. If every article has at least 1 link and no links are broken, what will eventually happen?

