Chapter 10.7
Monday, Week 8

## Warmup

Which of the following exist?

1. An Euler path on $K_{4}$
2. An Euler circuit on $K_{2,4}$
3. A Hamilton path on $C_{6}$
4. A Hamilton cycle on $P_{5}$

How many faces, edges and vertices does a planar drawing of $K_{4}$ have?

How many faces, edges and vertices does a cube have?

## Tests for Planarity

A kingdom has 5 cities. The king orders the royal engineer to find a way to put a road between every pair of cities so that no two roads fork or intersect. Can the engineer get the job done?

## Subdivisions

What do the following two graphs have in common? How are they different?


In what way is $C_{5}$ more similar to $C_{11}$ than to $P_{5}$ ?

