Dis 1: General Info; Common vs. Civil Law; Efficinecy [†]

1   General Info

1. **Contact Me**

   You can reach me by **sending me an email** or **attending my (virtual) office hours**.

   - Email me at **travis.cao@wisc.edu** (please start the subject line with "Econ 522").
   - Virtual office hours take place on BBCollaborate Ultra at the following times:
     - Mondays, 8:00 - 9:00am
     - Thursdays, 4:15 - 5:15pm
     - Or by appointment

2. **Discussion Sections**

   - Attendance
     - Live attendance is not required, but strongly encouraged.
     - Recordings will be posted (I tape all of my sections, but only the best one will be posted; all sections cover the same material)
     - Sections will take place on BBCollaborate Ultra at the following times:
       * Fridays, 9:55 - 10:45am
       * Fridays, 11:00 - 11:50am
       * Mondays, 1:20 - 2:10pm
       * Mondays, 2:25 - 3:15pm

       Feel free to attend the one that works the best with your schedule.
     - Side note: I'm toying with the idea of only teaching the two sections on Friday live. Monday sections will then be designated as asynchronized, while I add some extra time Monday afternoon as Office Hours instead. This plan is **NOT** official yet. I'll monitor the Monday attendance for a couple of weeks before making a decision.
       If you have any feedback on this, please feel free to let me know!

   - Handouts
     - Handouts will be available by Thursday midnight, and will be posted on Canvas weekly progress page, and my website.
     - Handout solutions will be posted by Monday night. Same places.

[†]Adapted from Jonathan Becker's Fall 2018 handout

2   Review: Common vs. Civil Law

In lecture, we discussed some differences between the Common and Civil Law traditions. Here are some of the main differences, though this list is by no means comprehensive.

1. **Common Law: "Spontaneous Order"**

   > **"Spontaneous"** – Law is created by aggregating all legal precedents, continuously in time (old precedents serve as basis for ruling; new ruling becomes precedent for the future).

   - **Origin:** 12th-century England.
   - **Location:** U.S., U.K., and most of other English speaking countries.
   - **Basis of Law:** Existing practices and social norms.
   - **Decision Making:** Based on interpretation of legislation and statutes, with judges constrained by precedents.
   - **Communicating Law:** Legal outcomes and principles compiled.

2. **Civil Law: "Planned Order"**

   > **"Planned"** – Law is created by explicitly writing down expectations, at some static points in time.

   - **Origin:** 18th-century France.
   - **Location:** Western Europe, South America, East Asia, and parts of Africa.
   - **Basis of Law:** Ancient Roman Law and "pure reason."
   - **Decision Making:** Based on interpretation of legislation and statutes.
   - **Communicating Law:** Commentaries clarify the meaning of law.

3 Review: Efficiency

1. **Welfare Criteria**

   (a) **Pareto**
      - **Pareto improvement**:

      - **Outcome B Pareto dominates outcome A**:

      - **Pareto efficient allocation**:

   (b) **Kaldor-Hicks**
      - **Kaldor-Hicks (K-H) improvement**:

      - **Outcome B K-H dominates outcome A**:

      - **K-H efficient allocation**:

2. **Pareto vs K-H**
   - Pareto improvement   K-H improvement

   - Pareto efficiency   K-H efficiency

- There is a sense in which checking for K-H improvements is more *informationally demanding* than checking for Pareto improvements.
  - To say outcome *B* is a Pareto improvement compared with outcome *A*, basically everyone just needs to give a thumbs-up (i.e. nobody is being made worse-off), with someone is so happy with outcome *B* that he/she is giving two thumbs-up (i.e. somebody is made strictly better-off).
  - However, to say outcome *B* is a K-H improvement compared with outcome *A*, we need to know *how much* better- or worse-off all parties are in order to know whether a monetary transfer can make *B* Pareto dominates *A*.

3. **Some "factors" that might lead to inefficiency:**

   In the Pareto sense, inefficiencies arise when

   In the Kaldor-Hicks sense, inefficiencies arise when

4 Problems

1. During the early days of Covid-19, toilet papers were hard to come by. You shop at Costco all the time, so you happen to have some extra toilet papers that you are willing to sell. Three of your neighbors have expressed interests in buying toilet papers from you. The valuations for the toilet papers are as follows:

	You	Neighbor A	Neighbor B	Neighbor C
Valuation	$20	$10	$30	$50

Which of the following are Pareto improvements? Which are Kaldor-Hicks improvements?

(a) You sell your extra toilet papers to neighbor A at the price of $30.

(b) You sell your extra toilet papers to neighbor B at the price of $30.

(c) You sell your extra toilet papers to neighbor B at the price of $40. Neighbor B then sells the extra toilet papers to neighbor C at the price of $45.

(d) You sell your extra toilet papers to neighbor C at the price of $45. Neighbor C decided to pay you through getting cash advance from their credit card. As a result, neighbor C now needs to pay credit card company the cash advance interest fee $10 to finish the transaction.
(When evaluating social welfare, focus on the welfare within this four-people society)

2. Two students form a team to work on a class project. Each student could choose to either to work like crazy (W), or to slack off (S). The payoff table is as follows:

	S	W
S	1, 1	6, -1
W	-1, 6	2, 2

(a) Find the Nash equilibrium/equilibria.

(b) Which outcomes are Pareto efficient? Which outcomes are Kaldor-Hicks efficient?

3. There are N cars in the city and two roads. From the perspective of each car user, it takes 105 minutes to traverse road A and $(5 + 20X)$ minutes to traverse road B, where X is the number of cars currently in the road.

   (a) What is the equilibrium number of cars on each road?

   (b) What is the Kaldor-Hicks efficient number of cars on each road? Is it Pareto efficient? Is it a Pareto improvement from the equilibrium outcome?