

Homework 1, ECON 2300, Darren Grant, Fall 2017. We will go over these on the homework days. By the time the first test has come, we will have gone over them all. I intend to use volunteers to discuss these problems in class. Only volunteer if you have worked the problem in advance and are prepared, but if you are prepared, you are encouraged to volunteer.

1. Which of the following markets are perfectly competitive? Why or why not?

- A) Wheat
- B) Paper
- C) Art (like paintings, sculpture)
- D) Unskilled Workers to work in Fast Food Restaurants
- E) Loans (money to be lent)
- F) Cellular Service

2. True or False?

A) A market can be perfectly competitive even government places restrictions on it; for example, that workers must be paid time and a half for overtime.

B) In perfectly competitive markets, firms choose how much they will produce based on how much they think people will want to buy.

C) When prices go up, that must mean that people are buying more.

D) The perfectly competitive market always seeks the price that equates the amount supplied with the amount demanded.

3. Identify three things government does to facilitate the smooth operation of the free market.

4. Answer these questions about price controls.

A) What are the two types of price controls?

B) There is a persistent surplus of product X in the marketplace. The market is competitive. What has happened?

C) People are buying product Y on the black market for much higher prices than the price that is listed in the store. Why?

D) When do price controls increase product quality, and when do they hurt product quality?

5. Illustrate, for each situation, the effect of the “event” on price and quantity, using a supply/demand graph.

A) An increase in income, on the market for gold.

B) A cost-saving technology improvement, on the market for computers.

C) A flood (of water), on the market for wheat.

D) Summer (vacation time), on the market for gasoline.

E) An increase in the price of electricity, on the market for steel.

6. The deregulation of the trucking industry around 1980 dramatically lowered the transportation costs of many goods producers, particularly manufacturers; it was cheaper to transport in the raw materials, and it was cheaper to transport out the final product. How did this affect the price and quantity of

manufactured goods in the competitive market? Illustrate on a supply/demand graph. Who wins: manufacturers, consumers, or both?

7. (Case and Fair, modified) One way to increase the amount of housing available to low-income households is simply for the government to build it (public housing). An alternative is to provide low-income households with vouchers that can be used like cash in renting housing supplied by the private market (not by government).

A) Illustrate the effect of each policy on the price and quantity of housing in the short run, using (separate) supply/demand curves.

B) In which case are landlords (owners of private housing) better off?

8. (Case and Fair, modified) The U.S. government administers two programs that affect the market for cigarettes. Media campaigns and labeling requirements are aimed at making the public aware of the health dangers of cigarettes. At the same time, the Department of Agriculture maintains a program which limits the amount of land that can be devoted to growing tobacco. Are these two programs at odds with respect to the goal of reducing cigarette consumption? Illustrate on a supply/demand graph.

9. Price supports keep the price of peanuts far above the free market price. Quotas are used to prevent overproduction (beyond that which consumers are willing to purchase). Illustrate this on a supply/demand graph. Indicate the supported price on your graph, the quantity produced and sold at that price, and the price and quantity that would prevail without price supports.

11. When the Olympics came to Rio de Janeiro, people needed a place to stay. Illustrate how this affected the price and quantity of hotel rooms on a supply/demand graph.

12. Illustrate, for each situation, the effect of the “event” on price and quantity, using a supply/demand graph.

A) A machine is developed that harvests tomatoes mechanically, on the market for tomatoes.

B) An economic expansion leads to a boom in housing construction, on the housing market.

C) Oil is discovered in Alaska, on the oil market.

D) An increase in the price of mustard, on the market for hot dogs.

13. Explain the fundamental rationale for leaving the free, competitive market alone (i.e., no government intervention).

14. Illustrate the effect of rent controls on price and quantity in the rental housing market, using a supply/demand graph. Give three side-effects of rent controls.

15. Which one of the following markets is closest to perfect competition? Which one is furthest from it?

A) Peanut Butter

B) Hotels

C) Hospitals

D) Landscaping

Homework 2, ECON 2300, Darren Grant, Fall 2017.

1. Fill in the following table. 2015 is the base year.

Year	Nominal GDP	Price Index	Real GDP
2015	\$15		
2016		120	\$16
2017	\$18		\$17

If the following table represented (approximately) the U.S. economy, then the figures would be in {hundreds, thousands, millions, billions, etc.}?

2. In the crazy country of Grantonia, between 2015 and 2016, the CPI increased from 100 to 110, while real GDP increased from \$500 Million to \$505 Million.

A) What is nominal GDP in 2015?

B) What is nominal GDP in 2016?

C) What was inflation between 2015 and 2016?

3. What is “Gross” about GDP?

4. There are (at least) three different types of unemployment: frictional, structural, and cyclical. Briefly describe each. Then tell which kind of unemployment the following policies are most clearly directed at:

1) Job-training assistance for workers displaced by NAFTA.

2) The Dept. of Labor posts job listings and has a computer database where people can look up jobs in their field.

3) Expansionary monetary policy is used to help pull the economy out of a recession.

5. In 2013 in Sockland, GDP was \$5 Trillion, net exports were \$100 Billion, investment was \$1 Trillion, and government purchases were \$1.5 Trillion. What accounts for the remaining \$2.4 Trillion? Did Sockland import more than it exported, or export more than it imported?

6. In a recession, what happens to real GDP, inflation, and unemployment? What about an expansion?

7. How is government spending different from government purchases of goods and services?

8. Name one weakness (each) of the way economists measure output, unemployment, and inflation.

9. Are government deficits run by the Federal Reserve, or by some other government entity?

10. How are the Natural Rate of Unemployment and Potential GDP related?

11. Do changes in the money supply typically have any effect on interest rates? If so, what?

12. An analogy to unemployment at SHSU is when students can't get the classes they want. In this spirit, give an analog to frictional unemployment, structural unemployment, and cyclical unemployment.

13. Country A is currently mired in recession. Its AS curve has the shape suggested by John Keynes.

A) Draw an AS/AD graph for this country.

The government undertakes expansionary policy.

B) Draw the effects of the policy on the graph. Identify output and the new price level on the graph.

C) Does inflation increase much in country A?

D) Does unemployment decrease much in country A?

E) On balance, is the expansionary policy desirable or not?

14. Country B is currently in an expansion which has lasted for some time. Its AS curve has the shape suggested by John M. Keynes.

A) Draw an AS/AD graph for this country.

The government undertakes expansionary policy.

B) Draw the effects of the policy on the graph. Identify the new price level and output level on the graph.

C) Does inflation increase much in country B?

D) Does unemployment decrease much in country B?

E) On balance, is the expansionary policy desirable or not?

15. The federal reserve conducts open market operation, purchasing \$1 million of Treasury bonds.

A) Was money created or destroyed?

B) By how much did the money supply change? Choose one answer and explain.

1) less than \$1 million, because some is held in reserve

2) \$1 million, the amount of the purchase

3) more than \$1 million, because of a multiplier effect

16. In Marsupialland, the unemployment rate is currently 10%.

A) Is unemployment near the natural rate of unemployment? Why or why not?

B) Is there likely to be any cyclical unemployment? Why or why not?

C) Draw this situation on an AS/AD graph. Is the current equilibrium at potential GDP, or not?

Homework 3, ECON 2300, Darren Grant, Fall 2017.

1. The “Minnow” has been shipwrecked on an uncharted desert island!! The table below tells you how many fish or coconuts each castaway could catch/find in a hour of work. (Mr. and Mrs. Howell, of course, don’t work.)

	Fish Caught in one hour of work	Coconuts Found in one hour of work	Opp. Cost of 1 Fish
Gilligan	5	18	
Ginger	8	24	
MaryAnn	3	12	
The Professor	6	15	
The Skipper	7	14	

- A) Determine the opportunity cost of producing one unit of fish, for each person, and fill them in the table.
- B) In order to produce coconuts and fish most efficiently, should each castaway make some fish and some coconuts, or should people specialize in fish or coconuts?
- C) Which person has the lowest opportunity cost of producing fish? Should this person specialize in fish or coconuts?
- D) In the real world, how is it that people end up specializing according to comparative advantage?

2. The three largest countries in North America are the United States, Canada, and Mexico. Listed below are the amounts (in bushels) of Wheat Germ and Oat Bran each country can produce on one acre of land, if they devote it to the production of that commodity.

	Wheat Germ	Oat Bran
United States	50	150
Canada	60	240
Mexico	70	350

- A) Draw the PPF’s for each country (three PPF’s).
- B) Plot the point (50,150) on the United States’ graph. Is this point on the PPF or not?
- C) During the talks for NAFTA, the three countries agree that one of them should specialize in the production of Wheat Germ. Which country should it be? Show your work.
- D) Which has a higher price, a bushel of Wheat Germ or a bushel of Oat Bran?
- E) Countries do best when they specialize in producing those product(s):
- 1) which they can produce more of than other countries can.
 - 2) which they cannot produce as much of as other countries can.
 - 3) which they can produce at a lower opportunity cost than other countries can.
 - 4) which they can produce at a higher opportunity cost than other countries can.

3. Katniss and Peeta have been shipwrecked on an uncharted deserted island!! The table below tells you how many Grubs or Bananas each person could catch/find in a hour of work.

	Grubs caught in one hour of work	Bananas picked in one hour of work	Opp. Cost of 1 Banana	Opp. Cost of 1 Grub
Katniss	10	18		
Peeta	12	24		

- A) Who is a better worker, Katniss or Peeta?
- B) Determine the opportunity cost of producing one Banana, for each person, and fill them in the table.
- C) Determine the opportunity cost of producing one Grub, for each person, and fill them in the table.
- D) Draw Katniss's and Peeta's PPFs.
- E) Who should specialize in Grubs, and who should specialize in Bananas?
- F) One season, unusually warm weather improves the Banana crop, so that each person can collect twice as many Bananas as they could have before. How does this change who specializes in what, in part E)?
4. Currently imports of sugar from the Caribbean are restricted by the U.S. government. Much of the sugar produced within the U.S. is grown in Florida and Louisiana and processed there and elsewhere.
- A) Illustrate the effect of removing the trade barriers on the price and quantity of sugar in the Caribbean.
- B) Illustrate the effect of removing the trade barriers on the price and quantity of sugar in the U.S.
- C) Who, of the following, would benefit from free trade in sugar?
- 1) U.S. sugar producers
 - 2) U.S. sugar consumers
 - 3) U.S. sugar workers
 - 4) Caribbean sugar producers
 - 5) Caribbean sugar consumers
 - 6) Caribbean sugar workers
- D) Which group, of those listed above, would probably gain the most from the free trade in sugar?
- E) Which of the following statements are true?
- 1) If the trade restrictions were removed, the U.S. would benefit, as a whole.
 - 2) If the trade restrictions were removed, the Caribbean would benefit, as a whole.
 - 3) If the trade restrictions were removed, more total stuff would be produced.
 - 4) The United States has comparative advantage in sugar production.
 - 5) If the trade restrictions were removed, some U.S. sugar growers would go out of business.
 - 6) The trade restrictions on sugar benefit everyone in the United States
5. What effect would the following have on the value of the dollar? Illustrate on supply/demand graphs.
- A) Consumer optimism leads people in the U.S. to want to buy more imported leather goods.
- B) The interest rate rises in the United States.
- C) Governmental instability in Russia causes Russians to wish to take their invested money out of that country

and invest it in the U.S. instead.

D) When the value of the dollar goes up, what happens to the yen/dollar exchange rate? Does it take more or less yen to buy a dollar?

6. If the American dollar gets stronger against the yen, which (if any) of the following are true? Identify any and all of the following that apply.

- 1) imports from Japan, into the United States, become cheaper
- 2) the yen/dollar exchange rate goes up
- 3) Americans travelling in Japan will be able to buy more
- 4) the yen has depreciated

7. Which (if any) of the following would strengthen the dollar? Identify any and all of the following that apply.

- 1) A decrease in American interest rates
- 2) A decrease in trade barriers in the United States
- 3) Political instability in the United States

8. The U.S. currently has negative net exports.

A) How do our imports compare to our exports? Do we have a trade surplus or a trade deficit?

B) Is our “current account” positive or negative? According to the balance of payments, is our “capital account” positive or negative?

C) Do other countries invest more in the U.S. than we do in other countries? Choose one answer and explain.

- 1) they invest in us more than we invest in them
- 2) we invest in them more than they invest in us
- 3) the amount of investment is equal, because of equilibrium

9. A Big Mac costs \$4 in the United States and 60 Rupees in India. If purchasing power parity holds, then what is the exchange rate between dollars and Rupees?

10. Go to amazon.com, and look up the price of a brand new copy of the CD “Yer Favourites” by The Tragically Hip, Canada’s favorite rock band. Then go to amazon.ca, and look up the same thing. Then, go look up the current exchange rate between the U.S. Dollar and the Canadian Dollar, and determine if purchasing price parity applies.