

ECO 120-04  
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Friday 14 October 2022

Your full name: \_\_\_\_\_

# Exam 1

Show your work to maximize partial credit.

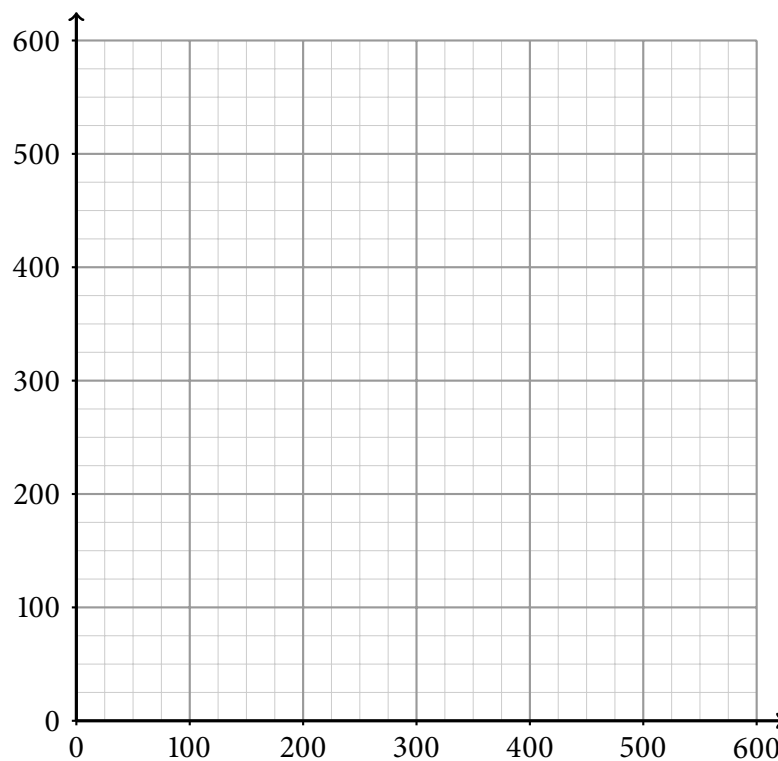
## Part A: An Argentine breakfast counter

You run a breakfast counter that serves breakfast empanadas and coffee. When production is efficient, you can produce the following combinations of empanadas and coffee in a week:

Combination	Empanadas	Coffee (cups)
<i>A</i>	0	500
<i>B</i>	100	450
<i>C</i>	200	350
<i>D</i>	300	200
<i>E</i>	400	0

Line segments between successive points also constitute efficient production. That is, you can connect these points with straight lines to form the production possibility frontier (PPF).

1. Please graph the PPF, with empanadas on the horizontal axis and cups of coffee on the vertical axis. Label the PPF and the axes.



2. How many cups of coffee do the first 100 empanadas cost?

3. How many cups of coffee do the last 100 empanadas cost (if you only produce empanadas)?
4. How many cups of coffee do the first 150 empanadas cost?
5. How many cups of coffee do the last 150 empanadas cost (if you only produce empanadas)?
6. How many empanadas do the first 100 cups of coffee cost?
7. How many empanadas do the last 100 cups of coffee cost (if you only produce coffee)?
8. Based on your answers, is the cost of producing empanadas increasing or decreasing?
9. Based on your answers, is the cost of producing cups of coffee increasing or decreasing?
10. What are the costs and benefits of producing Combination *B* instead of Combination *D*?

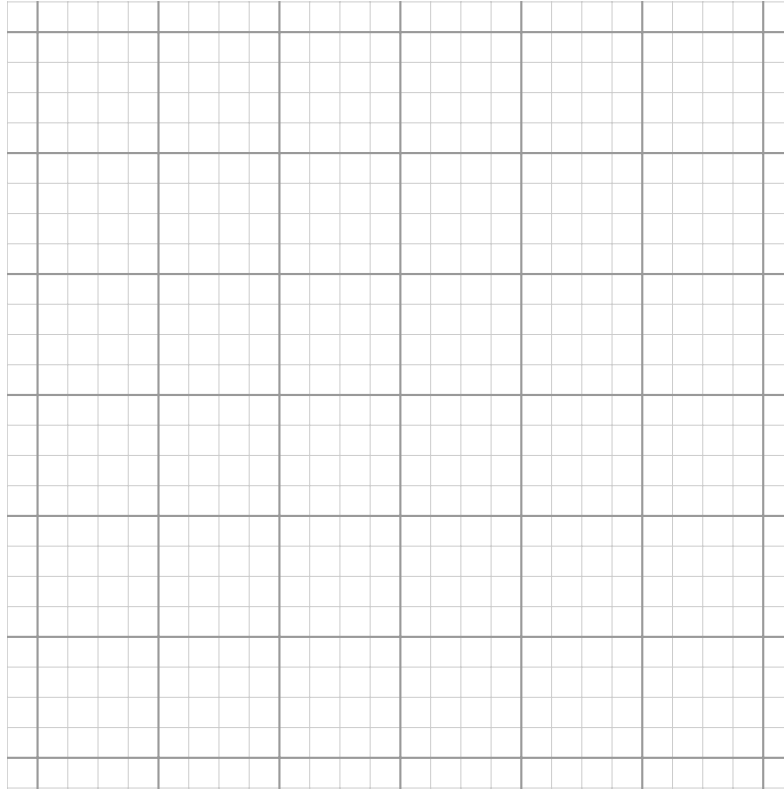
## Part B: Multiple choice

For each of the questions in this section, please circle the best response.

1. In factor markets,
  - (a) households supply goods and services.
  - (b) households supply resources.
  - (c) firms demand goods and services.
  - (d) firms supply goods and services.
2. Which entities supply capital?
  - (a) firms
  - (b) industry
  - (c) households
  - (d) governments
3. Which asset typically yields the greatest returns?
  - (a) stocks
  - (b) bonds
  - (c) U.S. Treasury bills
4. Which asset typically involves the greatest risk?
  - (a) stocks
  - (b) bonds
  - (c) U.S. Treasury bills
5. If the price of an asset is expected to rise in the future
  - (a) asset owners will be more willing to sell it now.
  - (b) it will be more in demand today.
  - (c) the price of the asset will fall today.
  - (d) the market is irrational.
6. In which market are stocks and bonds traded?
  - (a) Product market
  - (b) Wall Street
  - (c) Financial market
  - (d) Labor market

## Part C: The U.S. labor market

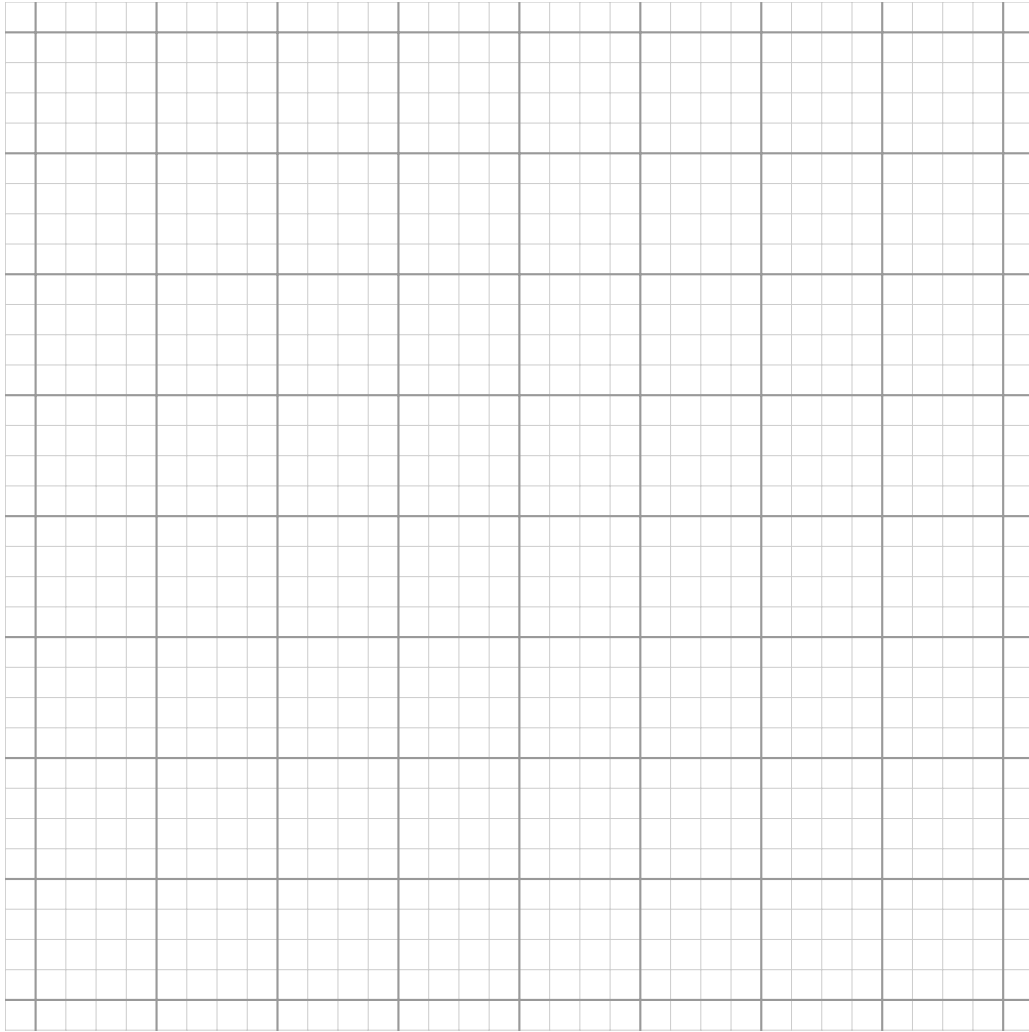
1. Draw a market demand curve and a market supply curve for hourly labor in the U.S. in 2019. In 2020, labor supply decreased substantially. Fully depict the change in equilibrium.



2. Describe any changes in price and quantity using complete sentences.
3. Explain why labor supply may have decreased in 2020 relative to 2019.
4. What is the price of hourly labor called?

## Part D: The U.S. market for home furnishings

1. Depict the U.S. market for dining sets in equilibrium with a supply and demand model. Label the curves as  $S$  and  $D$ , equilibrium price as  $p_1^*$ , equilibrium quantity as  $q_1^*$ , and axes as appropriate.

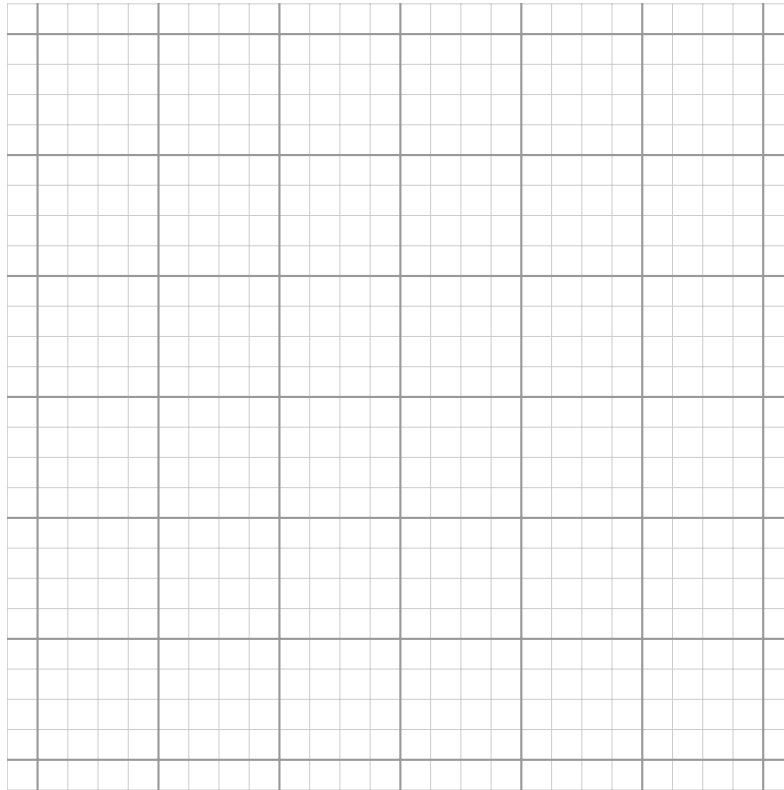


2. Due to the pandemic keeping people at home, more people want to buy new dining sets. Appropriately depict the new market-clearing equilibrium (e.g., prices, quantities, curves) using subscripts of 2.
3. What type of market is this—a factor market or a product market?

4. What entities does the demand curve represent?
5. What entities does the supply curve represent?
6. In complete sentences, please describe how the pandemic affected the equilibrium price of dining sets.
7. In complete sentences, please describe how the pandemic affected the equilibrium quantity of dining sets exchanged (i.e., bought and sold) in a given month.

## Part E: The U.S. market for crude oil

1. Depict the U.S. market for crude oil (units of barrels) in equilibrium with a supply and demand model. Label the curves as  $S$  and  $D$ , equilibrium price as  $p_1^*$ , equilibrium quantity as  $q_1^*$ , and axes as appropriate.



2. A hurricane strikes Texas, destroying off-shore oil rigs. On the same graph above, please illustrate this change and label any new curves with a subscript 2.
3. Due to increased consumer demand for gasoline, firms who refine crude oil increase their demand for crude. On the same graph above, please illustrate this change and label any new curves with a subscript 3.
4. Given all these changes to supply and demand, please label the new equilibrium price as  $p_4^*$  and equilibrium quantity of oil as  $q_4^*$ .
5. What type of market is this—a factor market or a product market?



6. What entities does the demand curve represent?

7. What entities does the supply curve represent?

8. In complete sentences, please describe how the hurricane affected the equilibrium price of oil.

9. In complete sentences, please describe how the hurricane affected the equilibrium quantity of crude oil exchanged (i.e., bought and sold) in a given month.