

## TEACHER RESOURCE GUIDE

### econchallenge.unl.edu/michigan

The Council for Economic Education (CEE) created the National Economics Challenge in 2000 to promote student interest in economics, reinforce classroom instruction, and advance academics and school spirit. Student teams compete on their knowledge, skills, and ability to work collaboratively to progress through multiple rounds which measure comprehension and application of economic concepts.

Students participate in either the Adam Smith or David Ricardo Division. In each division, teams of students answer rigorous questions on microeconomics, macroeconomics, international economics, and current events.

#### ADAM SMITH DIVISION

The Adam Smith Division challenges advanced placement, international baccalaureate and honors students.

#### DAVID RICARDO DIVISION

The David Ricardo Division challenges single semester general economics students.

**Each student of the championship team in both the Adam Smith & David Ricardo divisions will receive a \$250 MESP college scholarship!**

Teachers may utilize any resources at their disposal in addition to the sites listed below to help prepare students for the Amerisure Michigan Economics Challenge.

#### [Sample Tests](#)

[U.S. Census Bureau](#)

[Bureau of Economic Analysis](#)

[St. Louis Federal Reserve](#)

[FRED](#)

[Page One Economics](#)

[Bureau of Labor Statistics](#)

[Mr. Clifford Economics](#)

[The Economics Classroom](#)

[Marginal Revolution University](#)

[Atlanta Federal Reserve](#)

[The Economist](#)

[Michigan Economics HSCE](#)

[MCEE Twitter](#)

**The first 20 teachers to register and have at least 30 students take the online qualification test will receive a \$50 Amazon gift card.**

#### STEP 1

Register at [econchallenge.unl.edu/michigan](http://econchallenge.unl.edu/michigan)

#### STEP 2

Prepare using the materials provided in this document, at [nationaleconomicschallenge.org](http://nationaleconomicschallenge.org), and check out a complete list of competition rules on the registration site.

#### STEP 3

Enter student names from class roster, distribute access codes, students take 30 question online qualification test. Although teachers will create teams for online student qualification, this is merely a formality. Teams will be allowed to be reconstituted for the state finals.

#### STEP 4

A school will only be allowed to have a maximum of 2 teams qualify for the state finals in each division. To determine the schools that will receive a bid to the state finals, MCEE will average scores of the top 4 finishers and their next 4 finishers from each school. Those scores will represent the school scores and determine which schools receive the invitation to the state finals. Qualification bids for the state finals will be awarded to schools, not specific teams. Teachers will receive their student scores and can determine which students they would like to represent them at the state finals.

#### IMPORTANT DATES

##### Teacher Registration

January 2-March 11, 2020

##### Student Online Qualifier

January 2-March 11, 2020

##### State Finals

Walsh College-Novi Campus  
March 23, 2020

**ROUND 1**  
Microeconomics

**ROUND 2**  
Macroeconomics

**ROUND 3**  
International

## Adam Smith Division

*Advanced placement, international baccalaureate and honors students*

*The following broad topic areas will be the focus of questions on each of the three rounds of Economics Challenge testing. The Adam Smith division questions will be more challenging and reflect a difficulty level similar to an AP examination.*

### **Round 1: Microeconomics**

Production possibilities frontier  
Supply & demand  
Elasticity  
Controls on prices (price ceiling & floor)  
Impact of taxation  
Consumer & producer surplus  
Externalities  
Cost curves (MC, ATC, AVC, AFC, ATC, etc.)  
Perfect competition  
Monopoly  
Monopolistic competition  
Oligopoly  
Game theory  
Factor markets  
And more...

### **Round 2: Macroeconomics**

GDP  
Inflation  
Unemployment  
Aggregate demand  
Aggregate supply  
Market for loanable funds  
Fiscal policy  
Monetary policy  
Money supply  
Money market  
Phillips curve  
Financial markets  
And more...

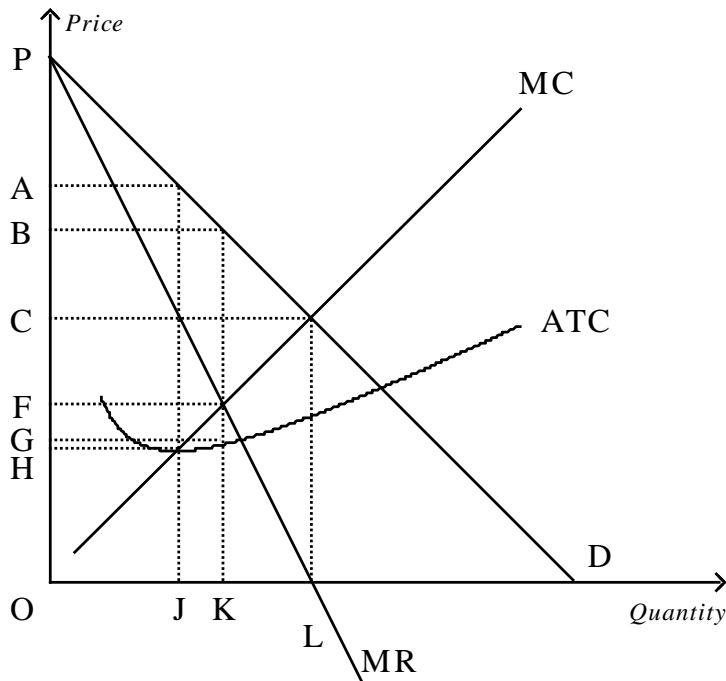
### **Round 3: International Trade & Current Events**

Comparative advantage  
Impact of taxes, tariffs, & quotas  
World price, trade, impact on consumer & producer surplus  
Foreign exchange market  
Flow of financial resources  
Michigan economic data  
United States economic data  
Debt  
And more...

**RELEASED QUESTIONS FROM MICHIGAN STATE FINALS**  
**Adam Smith Division**  
**Round 1: Microeconomics**

1. Which of the following events would result in a decrease in equilibrium price and an increase in equilibrium quantity?

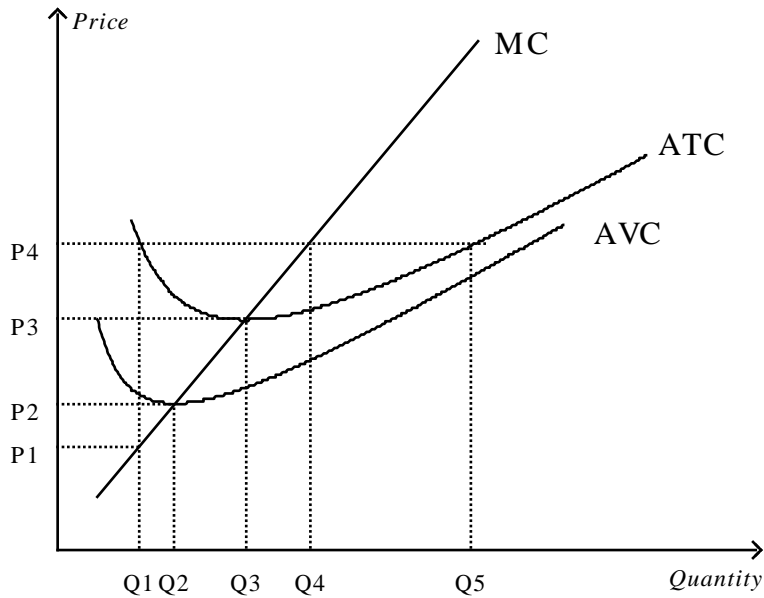
- a. an increase in demand
- b. an decrease in demand
- c. **an increase in supply**
- d. a decrease in supply
- e. an increase in supply and a decrease in demand



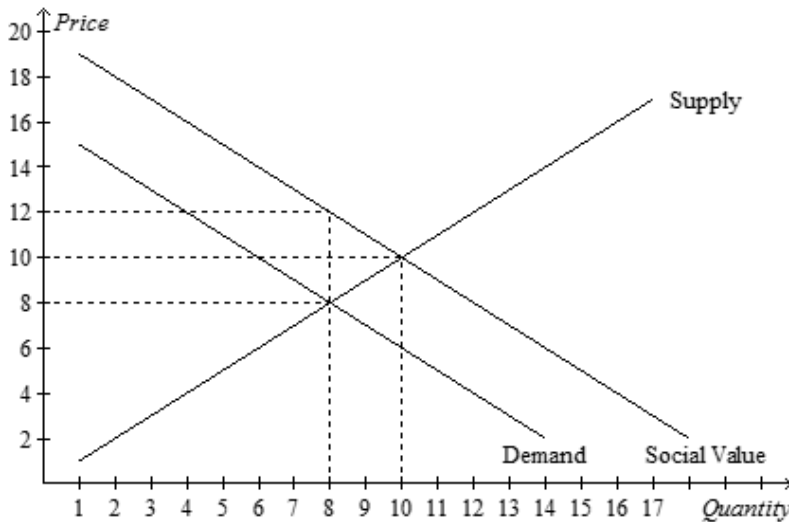
2. Refer to the figure above. What price will the monopolist charge?

- a. A
- b. **B**
- c. C
- d. F

Suppose a firm operating in a competitive market has the following cost curves:



3. Refer to the figure above. When price rises from P3 to P4, the firm finds that
- fixed costs decrease as output increases from Q3 to Q4.
  - it can earn a positive profit by increasing production to Q4.**
  - profit is still maximized at a production level of Q3.
  - average revenue exceeds marginal revenue at a production level of Q4.



4. Refer to the figure above. If the government wanted to subsidize this market to achieve the socially-optimal level of output, how large would the subsidy need to be?
- less than \$2
  - \$2
  - more than \$2**
  - The size of the subsidy cannot be determined from the figure.

Number of Workers	Total Product	Marginal Product	Total Revenue	Marginal Revenue Product
0	0	--	\$0	--
1	7	7	14	\$14
2	13	6	26	12
3	18	5	36	10
4	22	4	44	8
5	25	3	50	6
6	27	2	54	4
7	28	1	56	2

5. Utilize the table above. Adam’s Cookie Company operates in a perfectly competitive product market as well as a perfectly competitive labor market. Cookies are sold at a price of \$2. The table above indicates the total product per hour for workers. Given the data, if the wage rate is \$7 per hour, how many workers should Adam hire to maximize his profit?

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

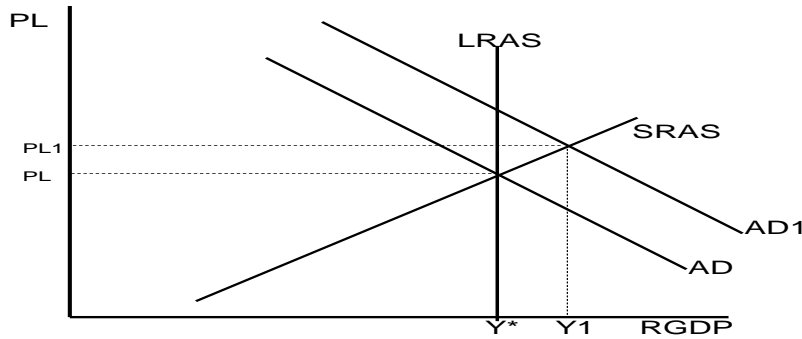
## RELEASED QUESTIONS FROM MICHIGAN STATE FINALS Adam Smith Division Round 2: Macroeconomics

1. If the Fed sells securities, the money supply will \_\_\_\_\_ (increase / not change / decrease), and market interest rates will \_\_\_\_\_ (increase / not change / decrease). If the Fed sells securities, it is pursuing a \_\_\_\_\_ (expansionary / contractionary) policy. The Fed would pursue this type of policy if the economy were facing \_\_\_\_\_ (inflation / recession).

- a. Increase; decrease; expansionary; recession
- b. Increase; increase; contractionary; recession
- c. Decrease; decrease; contractionary; inflation
- d. **Decrease; increase; contractionary; inflation**

2. According to the short-run Phillips curve, inflation

- a. and unemployment would fall if the policymakers decreased the money supply.
- b. **would fall and unemployment would rise if policymakers decreased the money supply.**
- c. and unemployment would fall if the policymakers increased the money supply.
- d. would fall and unemployment would rise if policymakers increased the money supply.

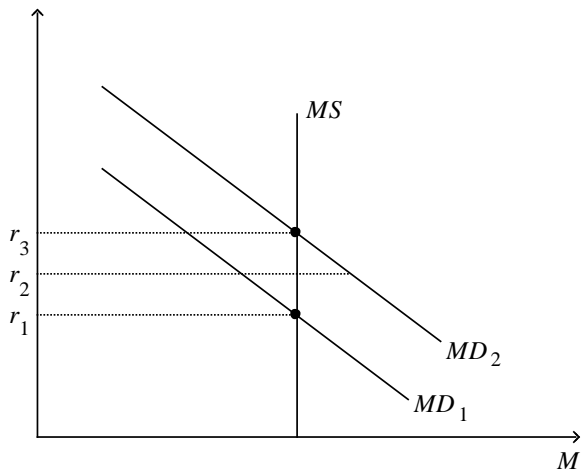


3. Use the figure above. Assuming the effects of the graph above were caused by one-time fiscal policy and no further government or Fed actions are taken, which correctly explains how the economy will self-correct in the long run?

- The economy will overheat until LRAS is stimulated to increase.
- The higher price level will encourage more production and SRAS will shift left.
- The expansionary fiscal policy will cause crowding out, which will eventually shift aggregate demand back to AD.
- The higher price level will decrease real wages, prompting demands for wage increases which will shift SRAS left.**
- The decrease in unemployment will lead to a permanent change in the full employment level which will shift LRAS to Y1.

4. If the supply of loanable funds shifts left, then

- the real interest rate and the equilibrium quantity of loanable funds both fall.
- the real interest rate falls and the equilibrium quantity of loanable funds rises.
- the real interest rate and the equilibrium quantity of loanable funds both rise.
- the real interest rate rises and the equilibrium quantity of loanable funds falls.**



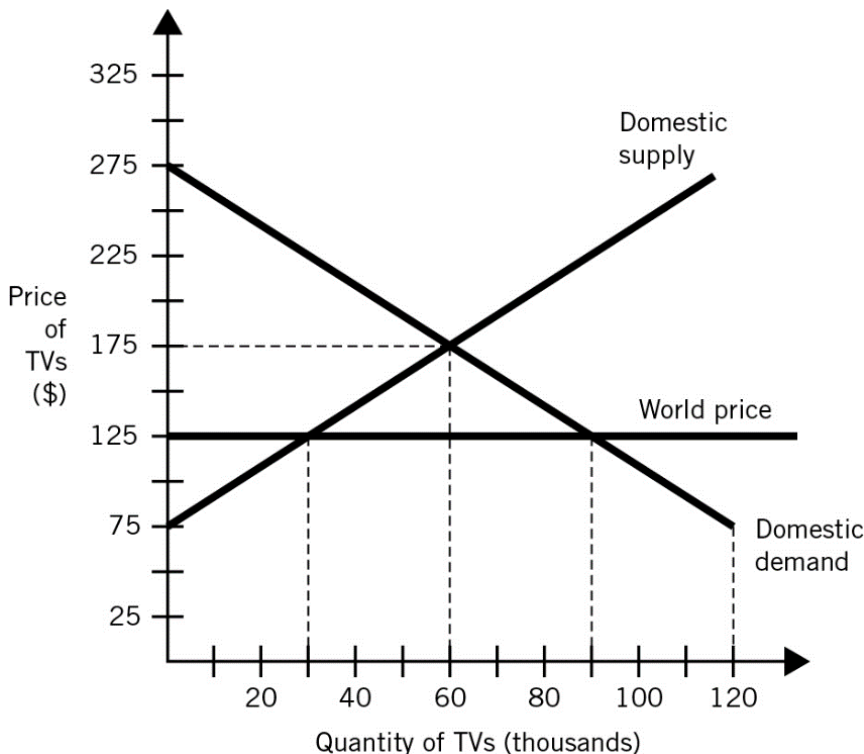
5. Refer to the figure to the left. Suppose the money-demand curve is currently  $MD_1$ . If the current interest rate is  $r_2$ , then

- the quantity of money that people want to hold is less than the quantity of money that the Federal Reserve has supplied.**
- people will respond by selling interest-bearing bonds or by withdrawing money from interest-bearing bank accounts.
- bond issuers and banks will respond by raising the interest rates they offer.
- in response, the money-demand curve will shift upward from its current position to establish equilibrium in the money market.

**RELEASED QUESTIONS FROM MICHIGAN STATE FINALS**  
**Adam Smith Division**  
**Round 3: International Trade & Current Events**

1. Suppose that a worker in Cornland can grow either 40 bushels of corn or 10 bushels of oats per year, and a worker in Oatland can grow either 5 bushels of corn or 50 bushels of oats per year. There are 20 workers in Cornland and 20 workers in Oatland. If the two countries do not trade, Cornland will produce and consume 400 bushels of corn and 100 bushels of oats, while Oatland will produce and consume 60 bushels of corn and 400 bushels of oats. If each country made the decision to specialize in producing the good in which it has a comparative advantage, then the combined yearly output of the two countries would increase by
- 280 bushels of corn and 450 bushels of oats.
  - 340 bushels of corn and 500 bushels of oats.**
  - 360 bushels of corn and 520 bushels of oats.
  - 360 bushels of corn and 640 bushels of oats.

Use the graph below to answer the question that follows.



2. If this economy is a trading (open) economy, it will
- import 30 thousand TVs.
  - import 60 thousand TVs.**
  - import 90 thousand TVs.
  - export 60 thousand TVs.
  - export 30 thousand TVs.

3. When Ghana sells chocolate to the United States, U.S. net exports
- increase, and U.S. net capital outflow increases.
  - increase, and U.S. net capital outflow decreases.
  - decrease, and U.S. net capital outflow increases.
  - decrease, and U.S. net capital outflow decreases.**
4. You are staying in London over the summer and you have a number of dollars with you. If the dollar depreciates relative to the British pound, then other things the same,
- the dollar would buy more pounds. The depreciation would discourage you from buying as many British goods and services.
  - the dollar would buy more pounds. The depreciation would encourage you to buy more British goods and services.
  - the dollar would buy fewer pounds. The depreciation would discourage you from buying as many British goods and services.**
  - the dollar would buy fewer pounds. The depreciation would encourage you to buy more British goods and services.
5. What was the U.S. inflation rate as measured by the unadjusted CPI for all urban consumers during 2015?
- 2.3%
  - 3.2%
  - 0.7%**
  - 6.9%



## David Ricardo Division

*Single semester general economics students*

*The following broad topic areas will be the focus of questions on each of the three rounds of Economics Challenge testing. The David Ricardo division questions will be based upon the Michigan High School Content Expectations for Economics. While some topics will be the same as the Adam Smith division, the questions in this division will be simpler and less complex.*

### **Round 1: Microeconomics**

Production Possibilities Frontier  
Supply & Demand  
Elasticity  
Controls on prices (price ceiling & floor)  
Impact of taxation  
Opportunity cost  
Externalities  
Market Structures  
Labor market  
Thinking at the margin  
Entrepreneurship  
Incentives  
Factors of production  
And more...

### **Round 2: Macroeconomics**

GDP  
Inflation  
Unemployment  
Monetary Policy  
Fiscal Policy  
Financial markets  
Financial institutions & Money Supply  
And more...

### **Round 3: International Trade & Current Events**

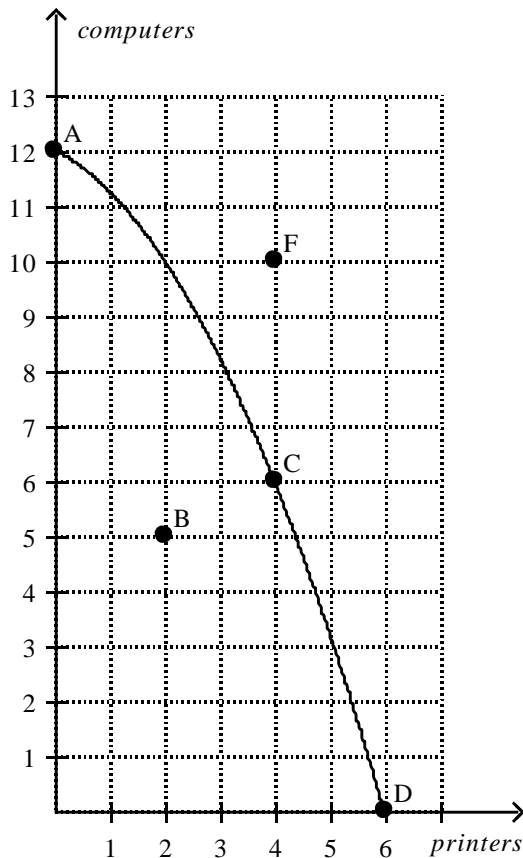
Exports & Imports  
Comparative Advantage  
Exchange rates  
Trade agreements  
Tariffs and quotas  
International organizations  
U.S. economic data  
Michigan economic data  
And more...

## RELEASED QUESTIONS FROM MICHIGAN STATE FINALS

### David Ricardo Division

### Round 1: Microeconomics

1. The fundamental source of monopoly power is
  - a. **barriers to entry.**
  - b. profit.
  - c. decreasing average total cost.
  - d. a product without close substitutes.
  
2. If the price of cattle feed increases, the result will probably be
  - a. an increase in the supply of cattle and lower cattle prices
  - b. **a decrease in the supply of cattle and higher cattle prices**
  - c. an increase in the demand for cattle and higher cattle prices
  - d. a decrease in the demand for cattle and lower cattle prices.



3. Refer to the figure to the left. Production at point B is
  - a. impossible and inefficient.
  - b. impossible but efficient.
  - c. **possible but inefficient.**
  - d. possible and efficient.

Use the following information to answer question 4.

Quantity of Output	Total Cost
0	30
1	40
2	60
3	90
4	130

4. What is the marginal cost for producing the second unit of output?
- \$130
  - \$90
  - \$60
  - \$40
  - \$20**
5. The Metropolitan Transit Authority raised the price of a bus ticket, but found that total revenues decreased. Apparently, the demand for bus service in Atlanta is
- elastic**
  - inelastic
  - unit elastic
  - neither elastic or inelastic
  - unable to determine given the amount of information

## RELEASED QUESTIONS FROM MICHIGAN STATE FINALS

### David Ricardo Division

### Round 2: Macroeconomics

1. Which of the following actions would be considered an example of expansionary fiscal policy?
- The government buys bonds.
  - The government lowers interest rates.
  - The government increases the money supply.
  - The government increases spending on infrastructure projects.**
  - The government raises income taxes on all Americans over the age of 16.
2. The CPI is a measure of the overall cost of
- the inputs purchased by a typical producer.
  - the goods and services purchased by a typical consumer.**
  - the goods and services produced in the economy.
  - the stocks on the New York Stock Exchange.

Use the table below to calculate the GDP for the given year.

SOURCE	AMOUNT
Wages and Salaries	\$201
Government Purchases	\$468
Exports	\$254
Rental Income	\$225
Consumption	\$912
Transfer Payments	\$162
Gross Private Investments	\$372
Business Profits	\$600
Imports	\$200
Interest Income	\$450
Corporate Stock Purchases	\$500
Indirect Business Taxes	\$222
Depreciation	\$108

3. The GDP is:

- a. **\$1806**
- b. \$4674
- c. \$2468
- d. \$1144

4. A tax for which high income taxpayers pay a smaller fraction of their income than do low-income taxpayers is known as a/an

- a. Proportional tax
- b. Progressive tax
- c. **Regressive tax**
- d. Equitable tax
- e. Excise tax

5. To **increase** the money supply, the Federal Reserve might

- a. increase the discount rate and sell bonds on the open market
- b. **decrease the reserve requirement and buy securities on the open market**
- c. increase the reserve requirement and sell securities on the open market
- d. increase the discount rate and lower the reserve requirement

## RELEASED QUESTIONS FROM MICHIGAN STATE FINALS

### David Ricardo Division

### Round 3: International Trade & Current Events

1. When the yen gets "stronger" relative to the dollar,

- a. the U.S. trade deficit with Japan will rise.
- b. **the U.S. trade deficit with Japan will fall.**
- c. the U.S. trade deficit with Japan will be unchanged.
- d. None of the above necessarily happens.

Use information below to answer question 2.

	Food	Electronics
Austria	20	5
Cambodia	8	4

2. The opportunity cost of one unit of food in Austria is
- 1 unit of electronics
  - 4 units of electronics
  - 5 units of electronics
  - 1/4 of a unit of electronics**
  - 1/5 of a unit of electronics
3. Which of the following countries is not a top 5 trading partner with the United States?
- Vietnam**
  - Canada
  - China
  - Germany
  - Japan
4. According to the U.S. Census Bureau and the U.S. Bureau of Economic Analysis, for 2015,
- the goods and services surplus was \$4.5 trillion
  - the goods and services deficit was \$1.3 trillion
  - the goods and services surplus was \$124.6 billion
  - the goods and services deficit was \$531.5 billion**
  - the goods and services deficit was \$781 million
5. Which country is the largest importer of items from Michigan?
- Italy
  - China
  - Canada**
  - Japan
  - United Kingdom