Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

SKU: 9781260881356-SOLUTIONS

Chapter 01 - Limits, Alternatives, and Choices

McConnell Brue Flynn, Barbiero Macro 16ce

DISCUSSION QUESTIONS

1. What is an opportunity cost? How does the idea relate to the definition of economics? Which of the following decisions would entail the greater opportunity cost: Allocating a square block in the heart of Toronto for a surface parking lot or allocating a square block at the edge of a typical suburb for such a lot? Explain. **LO1.2**

   Answer: An opportunity cost is what was sacrificed to do or acquire something else. The condition of scarcity creates opportunity cost. If there was no scarcity, there would be no need to sacrifice one thing to acquire another.

   The opportunity cost would be much higher in Toronto as the alternative uses for that square block are much more valuable than for a typical suburban city block.

2. Cite three examples of recent decisions that you made in which you, at least implicitly, weighed marginal cost and marginal benefit. **LO1.2**

   Answer: Student answers will vary, but may include the decision to come to class, to skip breakfast to get a few extra minutes of sleep, to attend college, or to make a purchase. Marginal benefits of attending class may include the acquisition of knowledge, participation in discussion, and better preparation for an upcoming examination. Marginal costs may include lost opportunities for sleep, meals, or studying for other classes. In evaluating the discussion of marginal benefits and marginal costs, be careful to watch for sunk costs offered as a rationale for marginal decisions.

3. What is "utility" and how does the idea relate to purposeful behaviour? **LO1.2**

   Answer: "Utility" refers to the pleasure, happiness, or satisfaction gained from engaging in an activity (eating a meal, attending a ball game, etc.). It is an important component of purposeful behaviour because people will allocate their scarce time, energy, and money in an attempt to gain the most utility possible.

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

4. What are the key elements of the scientific method and how does this method relate to economic principles and laws? **LO1.3**

   Answer: The key elements include the gathering of data (observation), the formulation of possible explanations (hypothesis), testing the hypothesis, determining the validity of the hypothesis, and repeated testing of hypotheses that have appeared to be valid in prior tests.

   The scientific method is the technique used by economists to determine economic laws or principles. These laws or principles are formulated to explain and/or predict behavior of individuals or institutions.

5. Make (a) a positive economic statement of your choice, and then (b) a normative economic statement relating to your first statement. **LO1.4**

   Answer: Student answers will vary. Example: (a) The unemployment rate is 6.8 percent; (b) the unemployment rate is too high. In general, we treat "what is" statements as positive, "what should be" as normative, but keep an eye out for statements like "at full employment an increase in the production of pizzas *should* come at the cost of less robots." Some students may incorrectly identify the statement as normative because of the term "should."

6. How does the slope of a budget line illustrate opportunity cost and trade-offs? How does a budget line illustrate scarcity and the effect of limited incomes? **LO1.5**

   Answer: Budget lines are always sloped downward. This downward slope shows an inverse relationship between the two goods, meaning that as you increase one, the other must decrease. This decrease is what you are giving up, or opportunity cost, of the good you are getting more of.
   Budget lines illustrate scarcity in that they show you are limited by your income. Since they slope downward, they show you cannot keep getting more and more of both goods. There is always a trade-off. The area beyond the budget line represents combinations of the goods that are beyond your income.

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

7. What are economic resources? What categories do economists use to classify them? Why are resources also called factors of production? Why are they called inputs? **LO1.6**

Answer: Economic resources are the natural, human, and manufactured inputs used to produce goods and services. Economic resources fall into four main categories: labour, land (natural resources), real capital (machines, factories, buildings, etc.,) and entrepreneurs. Economic resources are also called *factors of production* because they are used to *produce* goods and services. They are called *inputs* because they go *in* to a production process (like ingredients go into a bowl to make a cake), with the resulting goods and services also being referred to as *output*.

8. Why is money not considered to be a capital resource in economics? Why is entrepreneurial ability considered a category of economic resource, distinct from labour? What are the major functions of the entrepreneur? **LO1.6**

Answer: Money is not considered a capital resource because money is not productive – it provides access to resources but itself does not directly contribute to the production of goods and services. Additionally, the quantity of money in circulation does not determine an economy's productive capacity, while the amount of capital and other resources does. Doubling the amount of money in circulation does not change the economy's physical capacity to produce goods and services. Money is, however, referred as a *financial resource* and *financial capital*, reflecting its ability to acquire real economic resources.

Entrepreneurial ability and labour are both human resources, but they perform different functions in the productive process. Entrepreneurial ability does not directly produce goods and services; it organizes the resources that do. Labour refers to the human inputs that directly engage in production.

Entrepreneurs are risk-takers: They coordinate the activities of the other three inputs for profit—or loss, which is why they are called risk-takers. Entrepreneurs sometimes manage companies that they own, but a manager who is not an owner is not necessarily an entrepreneur but may be performing some of the entrepreneurial functions for the company. Entrepreneurs are also innovators, or perhaps inventors, and profits help to motivate such activities.

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

9. Specify and explain the typical shapes of marginal-benefit and marginal-cost curves. How are these curves used to determine the optimal allocation of resources to a particular product? If current output is such that marginal cost exceeds marginal benefit, should more or fewer resources be allocated to this product? Explain. **LO1.7**

    Answer: The marginal benefit curve is downward sloping; MB falls as more of a product is consumed because additional units of a good yield less satisfaction than previous units. The marginal cost curve is upward sloping, MC increases as more of a product is produced since additional units require the use of increasingly unsuitable resource. The optimal amount of a particular product occurs where MB equals MC. If MC exceeds MB, fewer resources should be allocated to this use, as the additional cost is more than the additional benefit.

10. Suppose that, on the basis of a nation's production possibilities curve, an economy must sacrifice 10,000 pizzas domestically to get the 1 additional industrial robot it desires but that it can get the robot from another country in exchange for 9,000 pizzas. Relate this information to the following statement:

    "Through international specialization and trade, a nation can reduce its opportunity cost of obtaining goods and thus 'move outside its production possibilities curve.'" **LO1.8**

    Answer: The message of the production possibilities curve is that an individual nation is limited to the combinations of output indicated by its production possibilities curve. International specialization means directing domestic resources to output which a nation is highly efficient at producing. International trade involves the exchange of these goods for goods produced abroad. Specialization and trade have the same effect as having more and better resources or discovering improved production techniques. The output gains from greater international specialization and trade are the equivalent of economic growth.

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

LAST WORD

Starbucks has $1 billion to invest. It can either purchase a rival coffee

shop chain or build additional Starbucks shops. If Starbucks chooses to purchase the rival chain, what does that say about the relative profitability of purchasing and owning the rival's existing shops versus building additional Starbucks shops? Explain.

Answer: If Starbucks made the decision to invest the $1 billion by purchasing a rival chain rather than building additional Starbucks shops, we can assume that Starbucks' management had made a careful comparison of the marginal costs and marginal benefits of each option and found that the net marginal benefit (or profitability) of purchasing the rival chain to be higher. Of course, the management team also determined that expected marginal benefits exceeded marginal costs. Otherwise, it would not make sense to pursue either option because they would be unprofitable.

REVIEW QUESTIONS

1. Match each term with the correct definition. **LO1.2**

   economics

   opportunity cost

   marginal analysis

   utility

   a. The next-best thing that must be foregone in order to product one more unit of a given product.

   b. The pleasure, happiness, or satisfaction obtained from consuming a good or service.

   c. The social science concerned with how individuals, institutions, and society make optimal (best) choices under conditions of scarcity.

   d. Making choices based on comparing marginal benefits with marginal costs.

   Answer: a. opportunity cost; b. utility; c. economics; d. marginal analysis

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

2. Indicate whether each of the following statements applies to microeconomics or macroeconomics: **LO1.3**

   a. The unemployment rate in Canada was 5.9 percent in January 2018.
   b. A software firm discharged 15 workers last month and transferred the work to India.
   c. An unexpected freeze in central Florida reduced the citrus crop and caused the price of oranges to rise.
   d. Canadian output, adjusted for inflation, increased by 3.0 percent in 2017.
   e. Last week ScotiaBank lowered its interest rate on business loans by one-half of 1 percentage point.
   f. The consumer price index rose by 1.7 percent from January 2017 to January 2018.

   Answer: a. macro; b. micro; c. micro; d. macro; e. micro; f. Macro

3. Suppose that you initially have $100 to spend on books or movie tickets. The books start off costing $25 each and the movie tickets start off costing $10 each. For each of the following situations, would the attainable set of combinations that you can afford increase or decrease?

   LO1.5

   a. Your budget increases from $100 to $150 while the prices stay the same.

   b. Your budget remains $100, the price of books remains $25, but the price of movie tickets rises to $20.

   c. Your budget remains $100, the price of movie tickets remains $10, but the price of a book falls to $15.

   Answer:

   a. **increase** because a larger budget allows you to purchase not only the combinations that you could afford before but also new combinations that you could not afford before (for example, you can now afford to purchase 4 books and 5 movie tickets);

   b. **decrease** because certain combinations are no longer affordable (for example, you can no longer purchase 10 movie tickets with your $100 budget);

   c. **increase** because the lower price allows you to purchase combinations that you could not afford before (for example, you can now purchase 6 books and 1 movie ticket)].

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

4. Suppose that you are given a $100 budget at work that can be spent only on two items: staplers and pens. If staplers cost $10 each and pens cost $2.50 each, then the opportunity cost of purchasing one stapler is: **LO1.5**

   a. 10 pens.

   b. 5 pens.

   c. zero pens.

   d. 4 pens.

   Answer: 4 pens. You must forego purchasing 4 pens if you are to free up enough money (4 x $2.50 = $10) to purchase a stapler.

5. For each of the following situations involving marginal cost (MC) and marginal benefit (MB), indicate whether it would be best to produce more, fewer, or the current number of units. **LO1.5**

   a. 3,000 units at which MC = $10 and MB = $13.

   b. 11 units at which MC = $4 and MB = $3.

   c. 43,277 units at which MC = $99 and MB = $99.

   d. 82 units at which MC < MB.

   e. 5 units at which MB < MC.

   Answer:

   a. **more** because MB > MC -- the benefit of consuming one more unit exceed the opportunity costs (scarce resources used elsewhere) of producing that additional unit.

   b. **fewer** because MC > MB -- the opportunity costs (scarce resources used elsewhere) of producing one more unit exceed the benefit of consuming that additional unit.

   c. **current amount** because MB = MC -- there is no net gain in using scarce resources in producing and consuming one more unit.

   d. **more** because MB > MC -- *see the explanation for part* (**a**)

   e. **fewer** because MB < MC -- *see the explanation for part* (**b**)

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

6. Explain how (if at all) each of the following events affects the location of a country's production possibilities curve: **LO1.7**

   a. The quality of education increases.

   b. The number of unemployed workers increases.

   c. A new technique improves the efficiency of extracting copper from ore.

   d. A devastating earthquake destroys numerous production facilities.

   Answer:

   a. Assuming better education translates into better work skills, then productivity should rise and this would shift the curve outward.
   b. Should not affect location of curve. Production moves inward, away from the curve.
   c. The curve should shift outward as more production is possible with existing resources.
   d. The curve should shift inward with the destruction of resources (capital).

7. What are the two major ways in which an economy can grow and push out its production possibilities curve? **LO1.8**

   a. Better weather and nicer cars.

   b. Higher taxes and lower spending.

   c. Increases in resource supplies and advances in technology.

   d. Decreases in scarcity and advances in auditing.

   Answer:

   c. The economy produces output from resource inputs like land, labour, and capital. So one major way for an economy to grow and push out its production possibilities curve is for it to *obtain more resources*.

   The second major way is to *develop new and better technologies* so that the economy can produce more from any given amount of resources.

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

PROBLEMS

1. Potatoes cost Janice $1 per kilogram, and she has $5.00 that she could possibly spend on potatoes or other items. If she feels that the first kilogram of potatoes is worth $1.50, the second kilogram is worth $1.14, the third kilogram is worth $1.05, and all subsequent kilograms are worth $0.30, how many kilograms of potatoes will she purchase? What if she only had $2 to spend? **LO1.2**

   Answer: 3; 2

   Feedback: Janice will purchase potatoes until the value of potatoes is less than the cost of potatoes or until her income has been exhausted. For example, assume Janice has $5.00 to spend on potatoes or other items and the cost of a kilogram of potatoes is $1. Now assume the first kilogram of potatoes is worth $1.50 to Janice. She will purchase this kilogram of potatoes since the value of the kilogram of potatoes ($1.50) is greater than the cost ($1). If the second kilogram is worth $1.14 and the third kilogram is worth a $1.05 then Janice will purchase these as well since the value exceeds the cost of $1. If all remaining kilograms are worth $0.30 then Janice will not purchase these because the value is less than the cost. So, Janice will purchase 3 kilograms of potatoes at total cost of $3.00.

   Now assume Janice only has $2.00 to spend on potatoes. She will purchase the first kilogram because it is worth $1.50 to her and it only costs a $1. She will purchase the second kilogram because it is worth $1.14. She has now spent her entire income on potatoes. She would like to purchase the third kilogram because the value of this kilogram of potatoes is $1.05, but she does not have the income to make this purchase. So, Janice will purchase 2 kilograms of potatoes at a total cost of $2.00.

2. Pham can work as many or as few hours as she wants at the university bookstore for $9 per hour. But due to her hectic schedule, she has just 15 hours per week that she can spend working at either the bookstore or at other potential jobs. One potential job, at a café, will pay her $12 per hour for up to 6 hours per week. She has another job offer at a garage that will pay her $10 an hour for up to 5 hours per week. And she has a potential job at a daycare center that will pay her $8.50 per hour for as many hours as she can work. If her goal is to maximize the amount of money she can make each week, how many hours will she work at the bookstore? **LO1.2**

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

Answer: 4.

Feedback: Pham will choose to work at the bookstore as long as the wage rate at the bookstore exceeds her other opportunities. However, if another job offers a higher wage rate she will choose employment there. She will work until her total time allotment (for work) is exhausted.

For example, assume Pham only has 15 hours per week that she can work and the wage rate at the bookstore is $9 per hour. She can also spend her time working at a café that will pay her $12 per hour for up to 6 hours per week, at a garage that will pay her $10 an hour for up to 5 hours per week, and at a daycare center that will pay her $8.50 per hour for as many hours as she can work.

She will choose to work at the café for the full 6 hours because the wage rate at the café is $12 per hour, which is greater than the wage rate at the bookstore of $9. This leaves her with 9 hours of work time remaining. Next, she will choose to work at the garage for the full 5 hours because the wage rate here is $10, which again is greater than the bookstore wage rate $9. After this decision she only has 4 hours of work time remaining. She will choose to work these last 4 hours at the bookstore because the bookstore wage rate of $9 exceeds the daycare center wage rate of $8.50.

3. Suppose you won $15 on a lotto ticket at the local 7-Eleven and decided to spend all the winnings on candy bars and bags of peanuts. Candy bars cost $0.75 each while bags of peanuts cost $1.50 each. **LO1.6**

   a. Construct a table showing the alternative combinations of the two products that are available.

   b. Plot the data in your table as a budget line in a graph. What is the slope of the budget line? What is the opportunity cost of one more candy bar? Of one more bag of peanuts? Do these opportunity costs rise, fall, or remain constant as additional units are purchased?

   c. Does the budget line tell you which of the available combinations of candy bars and bags of peanuts to buy?

   d. Suppose that you had won $30 on your ticket, not $15. Show the $30 budget line in your diagram. Has the number of available combinations increased or decreased?

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

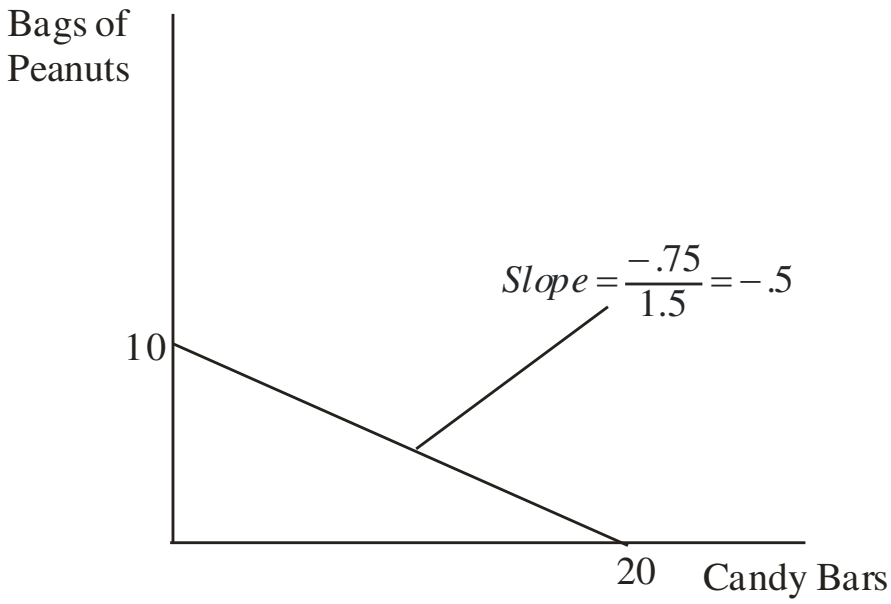
Answers:

Part a:

Consumption alternatives

Goods	A	B	C	D	E	F
Candy bars	0	4	8	12	16	20
Bags of peanuts	10	8	6	4	2	0

Part b:



Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

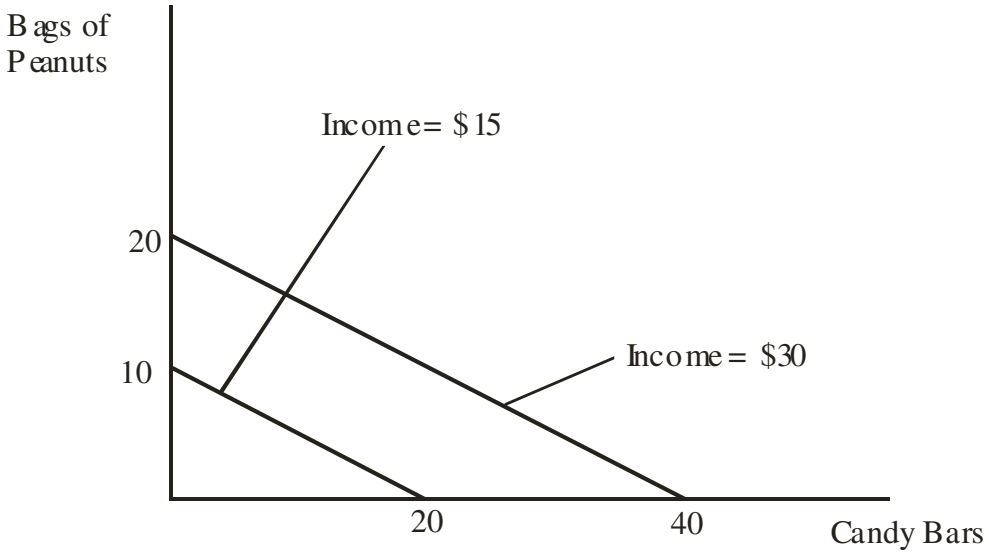
Feedback: The slope for the budget line above, with candy bars on the horizontal axis, is -0.5 (= $-P_{cb}/P_{bp}$). Note that the figure could also be drawn with bags of peanuts on the horizontal axis. The slope of that budget line would be -2.

The opportunity cost of one more candy bar is ½ of a bag of peanuts. The opportunity cost of one more bag of peanuts is 2 candy bars. These opportunity costs are constant. They can be found by comparing any two of the consumption alternatives for the two goods.

Part c: No; it only tells you what is possible.

Feedback: The budget line does not tell you which of the available combinations of candy bars and bags of peanuts to buy. You will need to use your preference relationship for candy bars and bags of peanuts to determine which combination to buy. The budget line only tells you which combinations are feasible.

Part d: Increased.



Feedback: The budget line at $30 would be preferable because it would allow greater consumption of both goods.

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

4. Suppose that you are on a deserted island and possess exactly 20 coconuts. Your neighbour, Friday, is a fisherman, and he is willing to trade 2 fish for every 1 coconut that you are willing to give him. Another neighbour, Kwame, is also a fisherman, and he is willing to trade 3 fish for every 1 coconut. **LO1.6**

   a. On a single figure, draw budget lines for trading with Friday and for trading with Kwame. (Put coconuts on the vertical axis.)

   b. What is the slope of the budget line from trading with Friday?

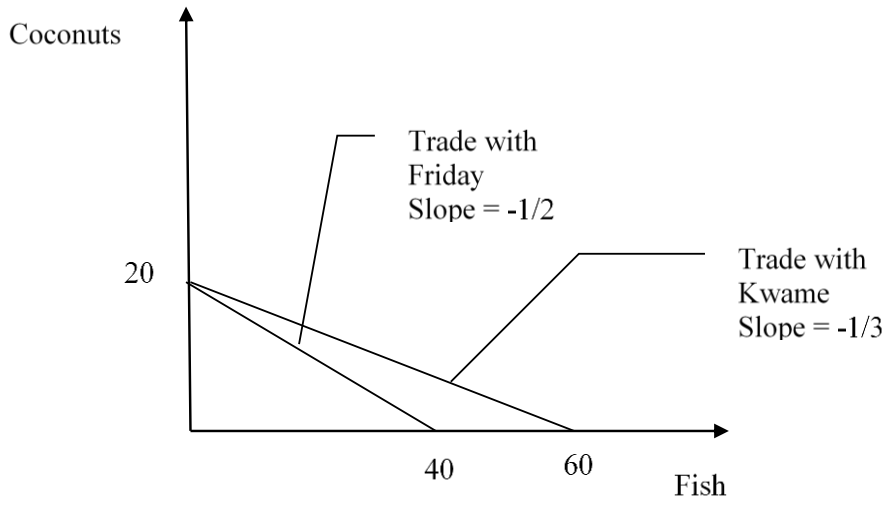
   c. What is the slope of the budget line from trading with Kwame?

   d. Which budget line features a larger set of attainable combinations of coconuts and fish?

   e. If you are going to trade coconuts for fish, would you rather trade with Friday or Kwame?

   Answers:

   Part a:



   Part b: -1/2

   Feedback: The slope of the budget line from trading with Friday equals -(1/2). This implies that for every coconut I give up, Friday must give up two fish. Or, for every fish that Friday gives up, I must give up (1/2) a coconut.

   Part c: -1/3

   Feedback: The slope of the budget line from trading with Kwame equals -(1/3). This implies that for every coconut I give up, Kwame must give up three fish. Or, for every fish that Friday gives up, I must give up (1/3) a coconut.

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

Part d: The budget line from trading with Kwame

Feedback: The budget line from trading with Kwame features a larger set of attainable combinations of coconuts and fish. Because Kwame is willing to give up more fish per coconut, I can consume more of both (assuming I make a trade). This implies that you would prefer to trade with Kwame.

Part e: Kwame

Feedback: Because Kwame is willing to give up more fish per coconut, I can consume more of both (assuming I make a trade). This implies that you would prefer to trade with Kwame.

5. Below is a production possibilities table for consumer goods (automobiles) and capital goods (forklifts): **LO1.7**

	Production Alternatives				
Type of Production	A	B	C	D	E
Automobiles	0	2	4	6	8
Forklifts	30	27	21	12	0

a. Show these data graphically. Upon what specific assumptions is this production possibilities curve based?

b. If the economy is at point C, what is the cost of one more automobile? Of one more forklift?

Which characteristic of the production possibilities curve reflects the law of increasing opportunity costs: its shape or its length?

c. If the economy characterized by this production possibilities table and curve were producing 3 automobiles and 20 forklifts, what could you conclude about its use of its available resources?

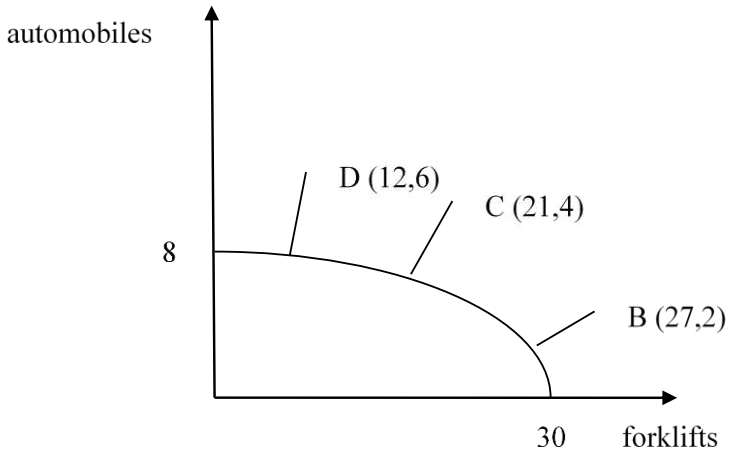
d. Is production at a point outside the production possibilities curve currently possible? Could a future advance in technology allow production beyond the current production possibilities curve? Could international trade allow a country to consume beyond its current production possibilities curve?

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

Answers:

Part a: (See figure below.) The assumptions are full employment, fixed supplies of resources, fixed technology and two goods.



Part b: 4 automobiles and 21 forklifts; its shape.

Feedback: Consider the following example:

	Production Alternatives				
Type of Production	**A**	**B**	**C**	**D**	**E**
Automobiles	0	2	4	6	8
Forklifts	30	27	21	12	0

Assume the economy is producing at point C. Thus, the economy is producing 4 automobiles and 21 forklifts.

The cost of producing one more automobile can be found by moving to point D and calculating the number of forklifts given up for the 2 additional automobiles. At point D the economy is producing 12 forklifts, which is a loss of 9 forklifts (moving from C to D) for the 2 additional automobiles. Thus, the cost of 1 more automobile equals 9 (forklifts) divided by 2 (automobiles), or (9/2) = 4.5 forklifts.

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

The cost of producing one more forklift can be found in an equivalent fashion. First, we will move to point B (from point C). Here we must give up 2 automobiles to get 6 forklifts. Thus, the cost of 1 more forklift equals 2 (automobiles) divided by 6 (forklifts), which is (2/6) = (1/3).

In review, take the cost (loss) and divide by the gain. If we were at point D, the cost of one more forklift equals 2 automobiles (loss) divided by 9 forklifts (gain). Thus, the cost of 1 more forklift at point B is (2/9) automobiles.

Increasing opportunity cost implies that we must give up more of a particular good to get an additional unit of a different good. This implies as we move along the production possibilities curve (from left to right) I must give up more automobiles to get an additional forklift. Thus, the SHAPE of the schedule captures the increasing opportunity cost concept.

Part c: Underutilizing.

Feedback: The economy is underutilizing resources (inside the PPC).

Part d: No; Yes; Yes.

Feedback: No, the country cannot produce outside its PPC. Yes, a technological advance would shift the PPC outward allowing the country produce more with a given amount of inputs. Yes, by specializing in goods we have a comparative advantage producing we can trade to gain access to goods beyond our own PPC.

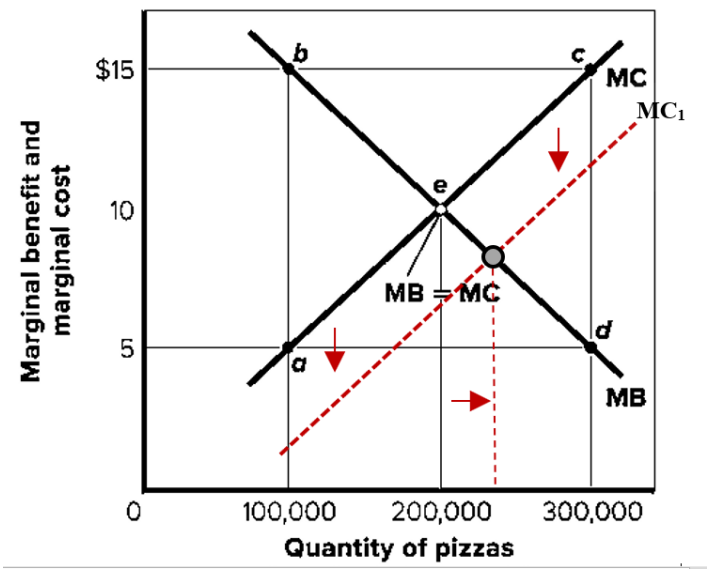
Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

6. Look at Figure 1.3. Suppose that the cost of cheese falls, so that the marginal cost of producing pizza decreases. Will the MC curve shift up or down? Will the optimal amount of pizza increase or decrease? **LO1.7**

Answers: MC will shift down; the optimal amount of pizza will increase.

FIGURE 1-3 Optimal Allocation: MB = MC



Feedback: To think about cost schedules we must think about input costs. If the cost of cheese falls, then the cost of making pizza is cheaper for all pizzas. This implies that the marginal cost schedule will shift down reflecting the lower input cost. For a given demand schedule, the optimal amount of pizza produced and sold will increase and the equilibrium price would fall. The opposite story would apply if the cost of cheese were to increase.

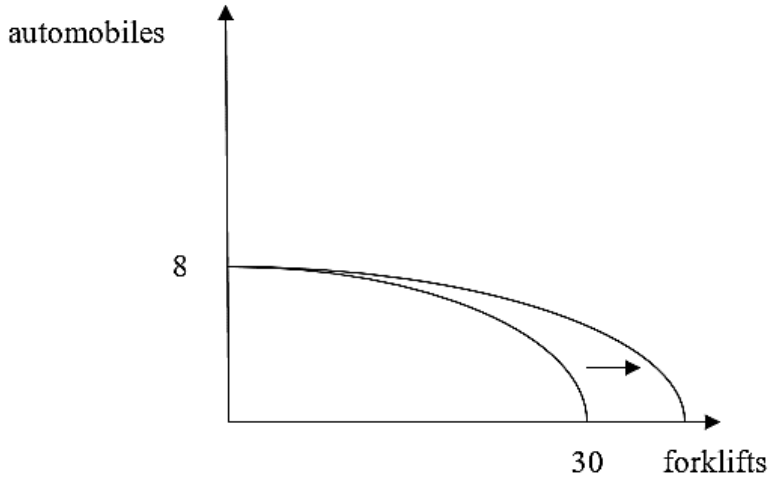
7. Referring to the table in problem 5, suppose improvement occurs in the technology of producing forklifts but not in the technology of producing automobiles. Draw the new production possibilities curve. Now assume that a technological advance occurs in producing automobiles but not in producing forklifts. Draw the new production possibilities curve. Now draw a production possibilities curve that reflects technological improvement in the production of both goods. **LO1.8**

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

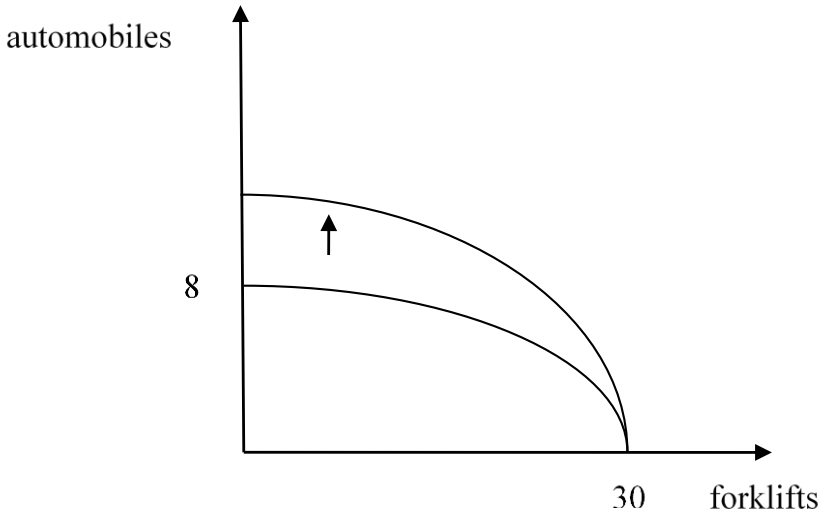
Answers: See figures below

Technological advance in producing forklifts and not automobiles.



Feedback: This implies we can produce more forklifts with the given resources, so the schedule will shift out along the horizontal axis.

Technological advance in producing automobiles and not forklifts.

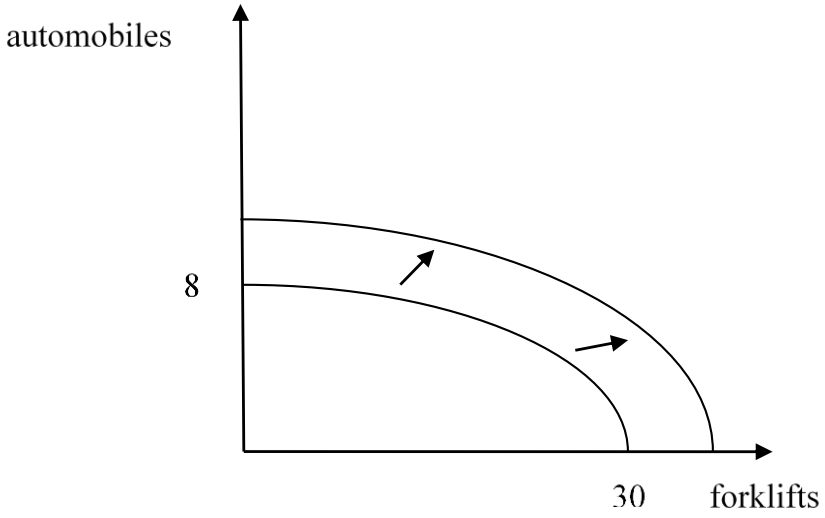


Feedback: This implies we can produce more automobiles with the given resources, so the schedule will shift up along the vertical axis.

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

Technological in advance in producing automobiles and forklifts.



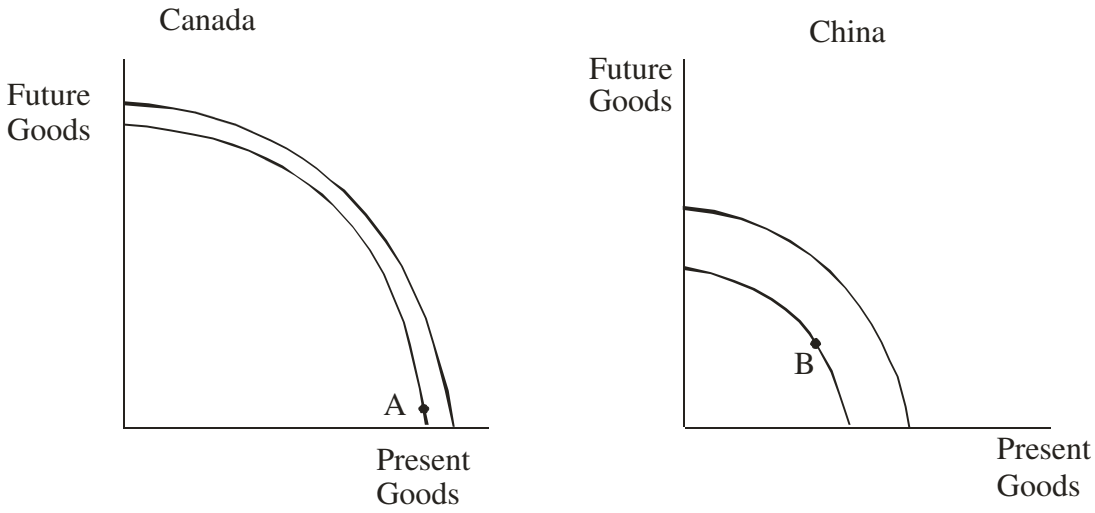
Feedback: This implies we can produce more forklifts and automobiles with the given resources, so the schedule will shift up out along the vertical and horizontal axes.

8. Because investment and capital goods are paid for with savings, higher savings rates reflect a decision to consume fewer goods for the present in order to be able to invest in more goods for the future. On average, households in China save 40 percent of their annual income each year, whereas households in Canada save less than 5 percent. Production possibilities are growing at roughly 9 percent annually in China and 3.5 percent in Canada. Use graphical analysis of "present goods" versus "future goods" to explain the differences in growth rates. **LO1.8**

Answers: See figures below

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual



Feedback: Since Canada is consuming more today rather than saving, their production possibilities curve will shift out slower (less) over time because they are accumulating less capital. China's production possibilities curve will shift out faster (more) over time because they are accumulating more capital.

Copyright © 2022
McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

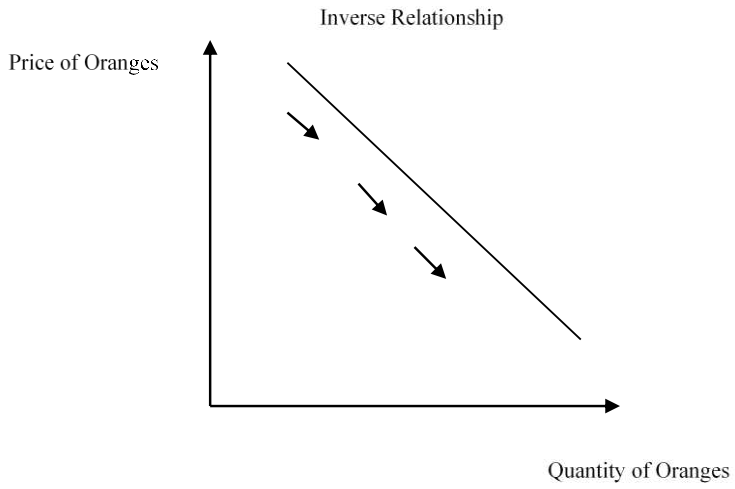
Chapter 01 Appendix

McConnell Brue Flynn Barbiero Macro 16ce

APPENDIX DISCUSSION QUESTIONS

1. What is an inverse relationship? How does it graph? What is a direct relationship? How does it graph? **LOA1.1**

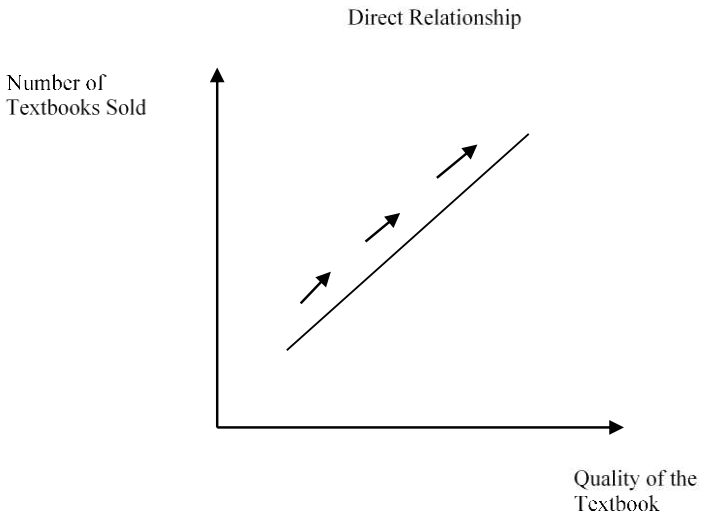
Answer: Graphs help us visualize relationships between key economic variables in the data. For example, the relationship between the price of oranges and the number of oranges purchased is likely to be an inverse relationship. An inverse relationship is one where we observe one variable increasing and the other variable decreasing as a result (moving in opposite directions). Thus, as the prices of oranges increase we would expect to see a decrease in the quantity of oranges purchased. Graphically, we represent this inverse relationship as follows.



As another example, the relationship between the quality of a textbook and the number of textbooks sold is likely to be a direct relationship. A direct relationship is one where we observe one variable increasing and the other variable increasing as a result (moving in the same direction). Thus, as the quality of the textbook increases the number of books sold also increases. Graphically, we represent this direct relationship as follows.

Copyright © 2022 McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual



2. Describe the graphical relationship between ticket prices and the number of people choosing to visit amusement parks. Is that relationship consistent with the fact that, historically, park attendance and ticket prices have both risen? Explain. **LOA1.1**

Answer: There is likely an inverse relationship between ticket prices and the number of people visiting amusement parks. As ticket prices increase relative to other goods, people will spend their income on these other goods. For example, they may decide to go to the movies instead of visiting the now more expensive amusement park.

The fact that, historically, park attendance and ticket prices have both risen over time does not change our story. This relationship is most likely the result of a change in demand, not a change in quantity demanded. The demand schedule for amusement parks has probably shifted to the right (an increase in demand) over time leading to an increase in attendance and prices.

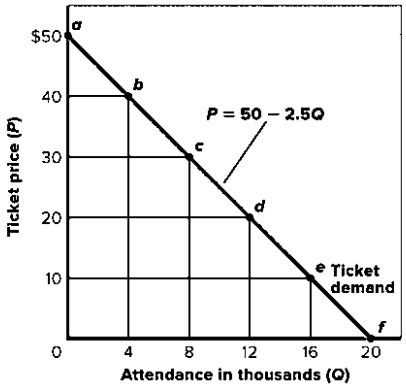
3. Look back at Figure A1.2, which shows the inverse relationship between ticket prices and game attendance at Informed University (IU). (a) Interpret the meaning of both the slope and the intercept. (b) If the slope of the line were steeper, what would that say about the amount by which ticket sales respond to increases in ticket prices? (c) If the slope of the line stayed the same but the intercept increased, what can you say about the amount by which ticket sales respond to increases in ticket prices? **LOA1.1**

Copyright © 2022 McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

Answer:

FIGURE A1-2 The Relationship Between Ticket Prices and Attendance



Part a: The slope of this relationship tells us how much the price of a ticket must fall to induce someone to buy an additional ticket. In this case, the slope of -2.5 tells us that the price must fall by $2.50 to sell one more ticket (or to induce someone to buy one more ticket). The vertical intercept tells us the price at which no tickets will be sold. Here, this price is $50. Combining these two components tells us that if the initial price is $50 per ticket and the price falls to $40, then 4 tickets will be purchased (one for each reduction in price of $2.50, which is the slope).

Part b: If the slope of this line were steeper this would imply that the price must fall by more than $2.50 to sell one more ticket. Or, thinking about this in the other direction, a steeper line would result in a smaller decrease in tickets purchased for a given increase in price. In other words, ticket sales (purchases) are less responsive to price movements.

Part c: If the vertical intercept increased this would imply that individuals are willing to purchase more tickets at every price. This will be an increase in the demand for tickets. This will not affect the slope or the quantity response to a change in the price of tickets. We still have the relationship that the price must fall by $2.50 to sell one more ticket (or to induce someone to buy one more ticket).

Copyright © 2022 McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

APPENDIX REVIEW QUESTIONS

1. Indicate whether each of the following relationships is usually a direct relationship or an inverse relationship. **LOA1.1**
   a. A sports team's winning percentage and attendance at its home games.
   b. Higher temperature and sweater sales.
   c. A person's income and how often they shop at discount stores.
   d. Higher gasoline prices and kilometers driven in automobiles.

   Answer:

   Part a: direct relationship because winning reams are typically more popular.
   Part b: inverse relationship because as higher temperatures people usually purchase fewer sweaters
   Part c: inverse relationship because as people get richer, they typically shop less often at discount stores.
   Part d: inverse relationship because higher gas prices cause most people to cut back on their driving.

2. Erin grows pecans. The number of bushels *(B)* that she can produce depends on the number of centimetres of rainfall *(R)* that her orchards get. The relationship is given algebraically as follows: $\boldsymbol{B = 3{,}000 + 800R}$. Match each part of this equation with the correct term. **LOA1.1**

B	slope
3000	dependent variable
800	vertical intercept
R	independent variable

Answer:

B goes with dependent variable.
3,000 goes with vertical intercept.
800 goes with slope.
R goes with independent variable.

Copyright © 2022 McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

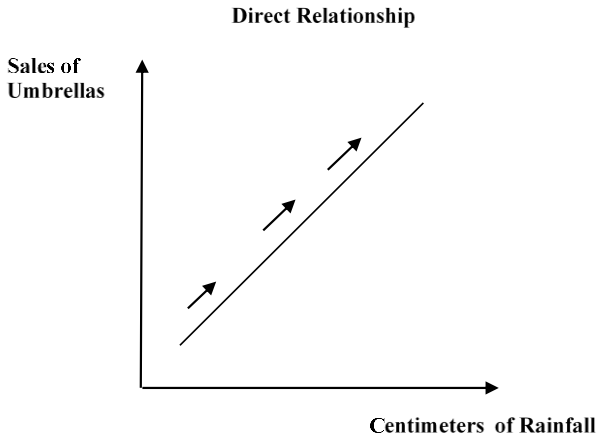
Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

APPENDIX PROBLEMS

1. Graph and label as either direct or indirect the relationships you would expect to find between (a) the number of centimeters of rainfall per month and the sale of umbrellas, (b) the amount of tuition and the level of enrollment at a college or university, and (c) the popularity of an entertainer and the price of her concert tickets. **LOA1.1**

Answer:

Part a:



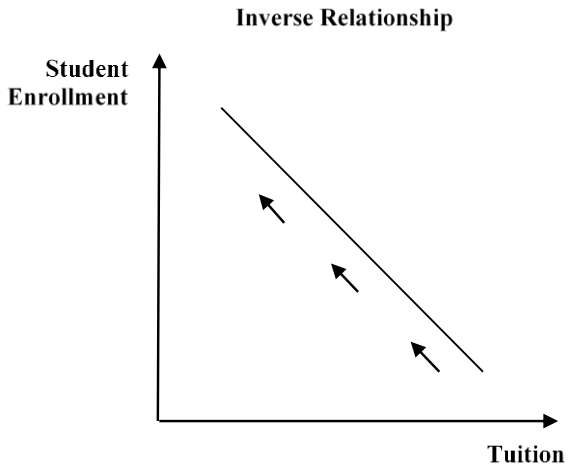
Feedback:

The number of centimeters of rainfall per month and the sale of umbrellas: There is likely a direct relationship between the number of centimeters of rainfall per month and the sale of umbrellas (more rain implies more umbrellas).

Copyright © 2022 McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

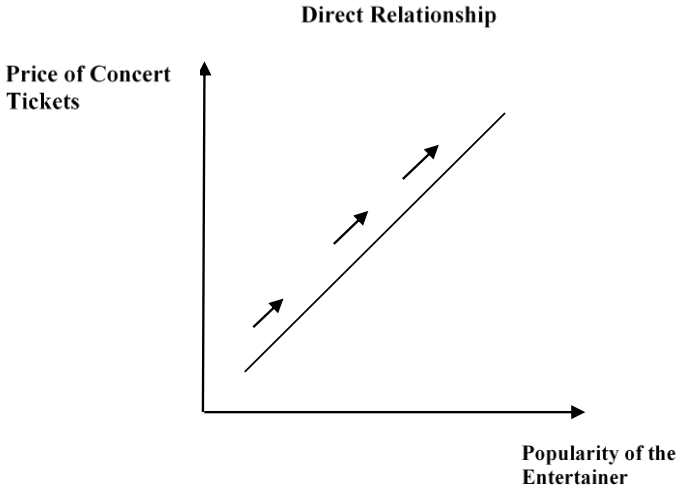
Part b:



Feedback:

The amount of tuition and the level of enrollment at a college or university: There is likely an inverse relationship between the amount of tuition and the level of enrollment at a college or university. As tuition increases less students will attend the college or university.

Part c:



Feedback:

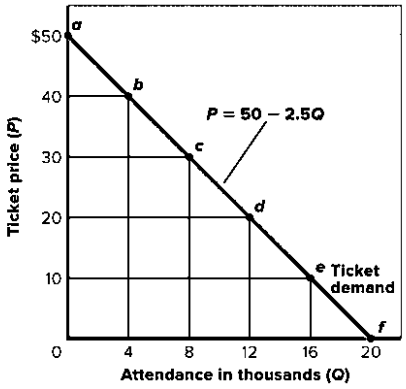
The popularity of an entertainer and the price of her concert tickets: There is likely a direct relationship between the popularity of an entertainer and the price of her concert tickets. The more popular the entertainer, the more people are willing to pay to see her in concert.

Copyright © 2022 McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

2. Indicate how each of the following might affect the data shown in Figure A1.2 of this appendix: **LOA1.1**

FIGURE A1-2 The Relationship Between Ticket Prices and Attendance



a. IU's athletic director schedules higher-quality opponents.

b. A National Basketball Association (NBA) team locates in the city where IU also plays.

c. IU signs a contract to have all of its home games televised.

Answer: (a) increase in demand; shift to the right; (b) decrease in demand; shift to the left; (c) decrease in demand; shift to the left.

Feedback: Consider the three scenarios:

Part a: IU's athletic director schedules higher-quality opponents. By scheduling higher quality opponents there will be an increase in demand. That is, more tickets will be purchased at every price. The demand schedule will shift to the right.

Part b: An NBA team locates in the city where IU plays. If an NBA team locates in the same city, this will reduce demand because the NBA team's games are likely a substitutes for IU's games. That is, less tickets will be purchased at every price. The demand schedule will shift to the left.

Part c: IU contracts to have all its home games televised. If IU contracts to have all of its home games televised, this will reduce demand because individuals can watch the game on television. That is, less tickets will be purchased at every price. The demand schedule will shift to the left.

Copyright © 2022 McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

3. The following table contains data on the relationship between saving and income. Rearrange these data into a logical order and graph them on the accompanying grid. What is the slope of the line? The vertical intercept? Write the equation that represents this line. What would you predict saving to be at the $12,500 level of income? **LOA1.1**

Income (per year)	Saving (per year)
$15,000	$1,000
0	-500
10,000	500
5,000	0
20,000	1,500

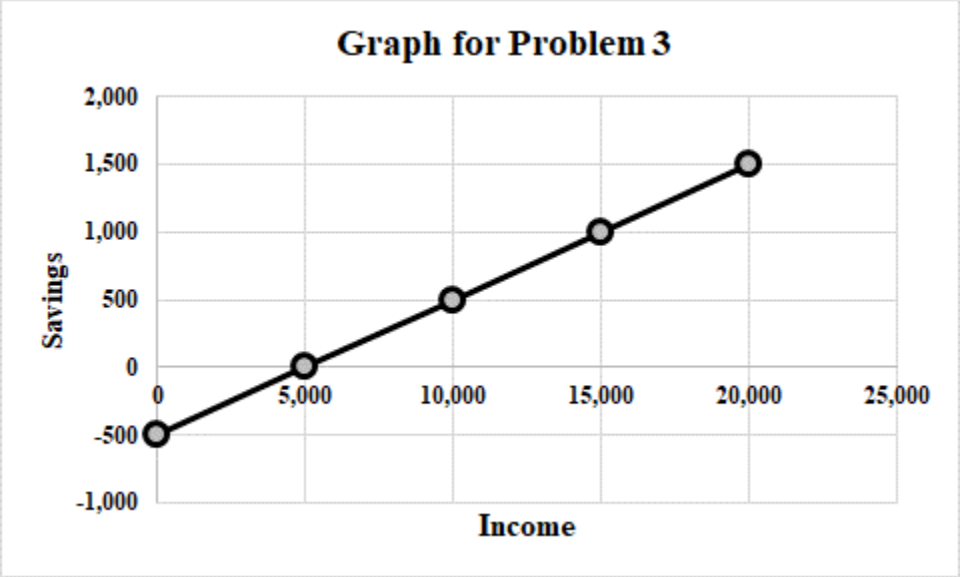
Answer:

Income per Year	Saving per Year
0	-$500
$5,000	0
$10,000	$500
$15,000	$1,000
$20,000	$1,500

To rearrange the above data into a meaningful order, we start with the lowest income and saving pair. We then continue with sequentially higher values of both income and saving. The reason for this ordering is that economic theory (and data) suggests that as income increases so does saving. The data are reordered as follows (you could also reorder from highest to lowest, but this is less intuitive).

Copyright © 2022 McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual



Slope equals (500/5000) or 0.10; the vertical intercept equals -$500. The equation representing this data is : Saving = -$500 + 0.1 × Income. The predicted level of saving is $750.

The slope of the saving line can be found by dividing the change in saving by the change in income between any two points. For example we have the entry (5000 (income), 0 (savings)) and the entry (10000 (income), 500 (savings)). This implies that the change in saving equals 500 minus zero (= 500) and the change in income equals 10000 minus 5000 (= 5000), therefore the slope equals (500/5000) or 0.10. That is, for every additional dollar an individual earns (net income) he or she will save 10 cents and consume 90 cents. The vertical intercept equals -$500. This implies that if the individual does not earn an income he or she either borrows $500 or reduces past savings (stock variable) by $500.

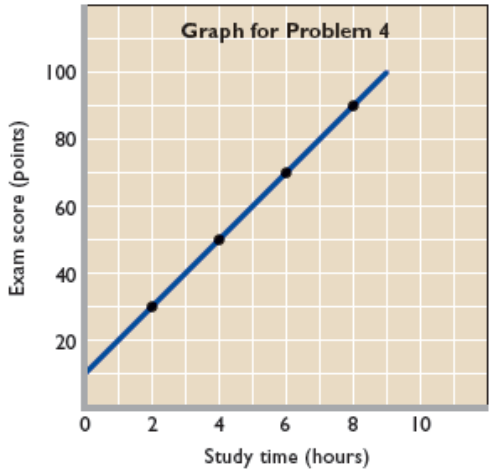
The equation representing this data is : Saving = -$500 + 0.1×Income.

To find the predicted amount of saving for a given level of income we substitute the income level into the equation above. For example if income equals $12,500, then the predicted level of saving equals -$500 + 0.1×$12,500. Thus the predicted level of saving is $750 (= -$500 + $1250).

Copyright © 2022 McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

4. Construct a table from the data shown on the graph below. Which is the dependent variable and which the independent variable? Summarize the data in equation form. **LOA1.1**



Answer:

Study Time (hours)	Exam Score (points)
0	10
2	30
4	50
6	70
8	90

The dependent variable is Exam Score (points); Study Time (hours) is the independent variable. Thus, the equation representing this relationship is: Exam Score = 10 + 10 x Study Time.

Feedback:

The dependent variable is Exam Score (points) because we assume Study Time (hours) influences your score. The more hours you spend studying will increase your exam score. This means that Study Time (hours) is the independent variable.

The vertical intercept for this relationship is your exam score if you choose not to study (zero hours). From the table above this value is 10.

To find the slope we divide the change in your Exam Score by the change in Study Time for any two points. For example we have the entry (2 (study time), 30 (exam score)) and the entry (4, 50). This implies the slope equals (50-30) divided by (4-2), which equals 20/2 (= 10). For every additional hour you spend studying your exam score will increase by 10 point.

Thus, the equation representing this relationship is:

$$\textbf{Exam Score} = 10 + 10 \times \textbf{Study Time}$$

Copyright © 2022 McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

5. Suppose that when the interest rate on loans is 16 percent, businesses find it unprofitable to invest in machinery and equipment. However, when the interest rate is 14 percent, $5 billion worth of investment is profitable. At 12 percent interest, a total of $10 billion of investment is profitable. Similarly, total investment increases by $5 billion for each successive 2-percentage-point decline in the interest rate.

   Describe the relevant relationship between the interest rate and investment in a table, on a graph, and as an equation. Put the interest rate on the vertical axis and investment on the horizontal axis. In your equation use the form $i = a + bI$, where i is the interest rate, a is the vertical intercept, b is the slope of the line (which is negative), and I is the level of investment. **LOA1.1**

Answer:

Interest rate (in percent)	Amount of investment (billions of dollars)
16	**$ 0**
14	**5**
12	**10**
10	**15**
8	**20**
6	**25**
4	**30**
2	**35**
0	**40**

Equation: i = 16 - (2/5)I

OR i = 16 – (0.4)I

Feedback: When the interest rate is 16%, investment spending will be zero. When the interest rate is 14%, investment spending will be $5 billion. For each successive drop of 2 percentage points in the interest rate, investment spending will increase by $5 billion.

Using equation $i = a - bI$

$$i = 16 - [(16-14)/(5-0)] \times I$$

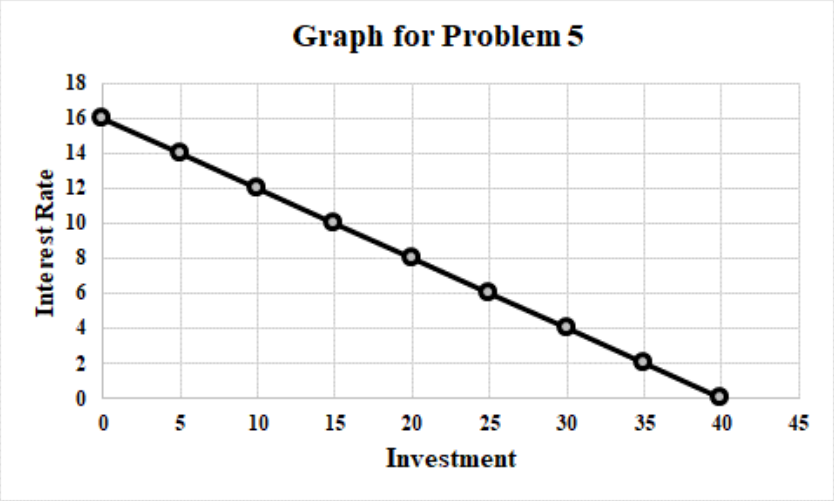
$$= 16 - \left(\frac{2}{5}\right) I$$

$$= 16 - 0.4I$$

Graphically we have the following relationship:

Copyright © 2022 McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual



6. Suppose that $C = a + bY$, where C = consumption, a = consumption at zero income, b = slope, and Y = income. **LOA1.1**

   a. Are C and Y positively related or are they negatively related?

   b. If graphed, would the curve for this equation slope upward or slope downward?

   c. Are the variables C and Y inversely related or directly related?

   d. What is the value of C if $a = 10$, $b = .50$, and $Y = 200$?

   e. What is the value of Y if $C = 100$, $a = 10$, and $b = .25$?

   Answers:

   (a) positively related; (b) upward; (c) directly related; (d) C = 110; (e) Y = 360.

   Feedback:

   (a) C and Y are positively related because the slope, b, is positive by assumption. As individual income increases the individual will spend some of this additional income on consumption.

   (b) The curve would slope upward because the slope is positive.

   (c) C and Y are directly related because C and Y are positively related (move in the same direction).

Copyright © 2022 McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

(d) Consider the following values: If a = 10, b = .50, and Y = 200, then C = 110. If a = 10 and b = .50, then the consumption function takes the following form C = 10 + 0.50 x Y. If income equals 200, Y = 200, then consumption at this level of income equals C = 10 + 0.50 x 200 = 110.

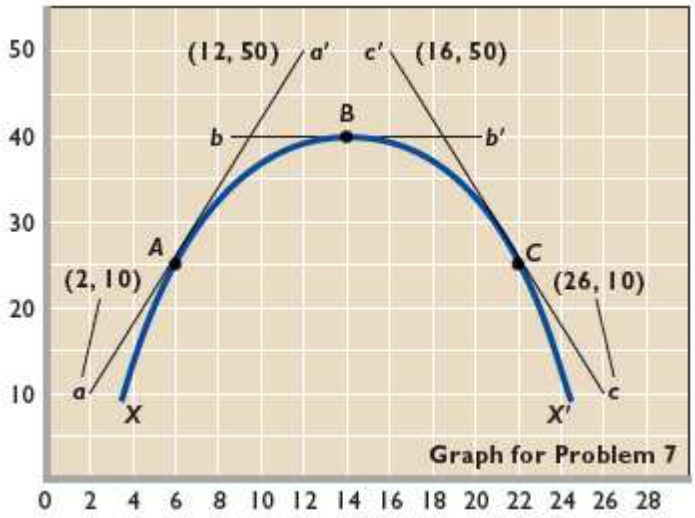
(e) Consider the following values: Y if C = 100, a = 10, and b = .25, then Y = 360. If a = 10 and b = .25, then the consumption function takes the following form C = 10 + 0.25 x Y. We can solve for Y as a function of C.

STEP 1: 0.25 x Y = C - 10

STEP 2: Y = (1/0.25) x C - (10/0.25) = 4 x C - 40

STEP 3: Substitute in the value of consumption given, C = 100. Y = 4 x 100 - 40 = 360.

7. The accompanying graph shows curve *XX*' and tangents at points *A*, *B*, and *C* . Calculate the slope of the curve at these three points. **LOA1.1**



Answer: Point A, slope = 4; Point B, slope = 0; Point C, slope = -4.

Feedback:

To calculate the slope of the function use the "rise-over-run" approach. The "rise" is the change in the variable on vertical axis as you move between entries (points) and the "run"

Copyright © 2022 McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

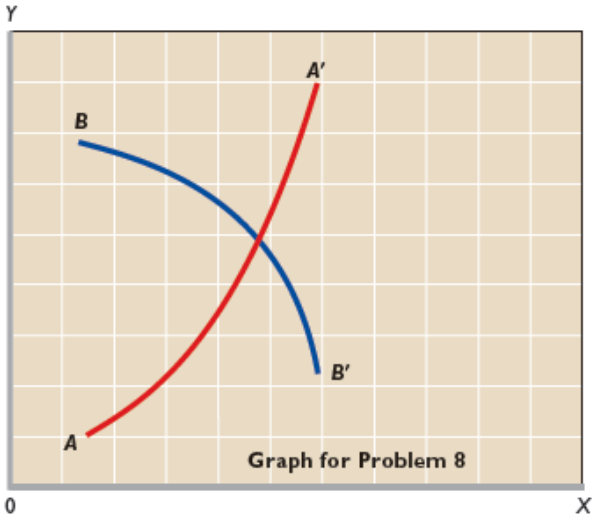
is the change in the variable on the horizontal axis as you move between the SAME two entries (points).

Point A has a slope that equals 4. To see this we use the two entries (2,10) and (12,50). The "rise" equals 50 - 10 = 40. The "run" equals 12 - 2 = 10. To find the slope we use the rule "(rise/run)", which equals (40/10) = 4.

Point B has a slope equal to zero. There is no "rise" here, so we do not need coordinates to calculate this value.

Point C has a slope that equals -4. To see this we use the two entries (16,50) and (26,10). The "rise" equals 10 - 50 = -40 (note that "rise" can be negative). The "run" equals 26 - 16 = 10. To find the slope we use the rule "(rise/run)", which equals (-40/10) = -4.

8. In the accompanying graph, is the slope of curve *AA'* positive or negative? Does the slope increase or decrease as we move along the curve from *A* to *A'*? Answer the same two questions for curve *BB'*. **LOA1.1**



Answer: Slope of *AA'* is positive; increases; Slope of *BB'* is negative; decreases.

Copyright © 2022 McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

Feedback:

Slope of *AA*' is positive (rising from left to right). The slope increases as we move from *A* to *A*'.

Slope of *BB*' is negative (dropping from left to right). The slope becomes more negative, thereby decreasing, as we move from B to B'.

Copyright © 2022 McGraw-Hill Education. All rights reserved. No reproduction or distribution without the prior written consent of McGraw-Hill Education.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

Demand and Supply - ABA teaching notes

This activity is designed to test students' knowledge of fundamentals of demand and supply:

- a movement along versus a shift of the demand/supply curve (2 questions)
- factors that shift the demand/supply curve (3 questions)
- changes to market equilibrium given a single shift of the demand or supply curve (2 questions)
- changes to market equilibrium given a shift of both the demand and supply curve (1 question)

The student plays the role of a contestant on an economics game show that is similar to Jeopardy. The game board has six different question categories:

- Movement Along or Shift?: Students need to determine if an event causes a movement along or a shift of a curve and the direction of the movement or shift.
- Demand: These questions cover the factors that shift the demand curve. Students need to determine which curve shifts (in a substitute or complement scenario) and the direction of the shift (increase versus decrease).
- Demand Changes to Equilibrium: Given an event that shifts a demand curve, students need to determine the direction of the shift and how the shift changes the market equilibrium price and quantity.
- Supply: These questions cover the factors that shift the supply curve. Given a scenario, students need to determine the direction of the supply curve shift.
- Supply Changes to Equilibrium: Given an event that shifts a supply curve, students need to determine the direction of the shift and how this shift changes the market equilibrium price and quantity.
- Mystery: The mystery questions involve a scenario in which both the demand and supply shift. Students will need to determine the direction of each of the shifts and how the combined shifts change the market equilibrium price and quantity.

Overview of the Simulation 'Play':

- The student plays the role of a contestant playing against another contestant on the game show.
- Students are informed that each category has four questions that are worth $100, $200, $300, and $400 that correspond to the level of difficulty (higher dollar amounts are associated with greater challenge).

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

- If a question is answered correctly, the contestant earns the dollar amount associated with the question, with the one exception of the Bonus Play question (if the student answers correctly, they earn $500 and the other contestant loses $500 and vice versus if the student does not answer correctly).
- If a non-Bonus Play question is answered incorrectly, no money is lost. If any question is answered incorrectly, the correct answer is explained as feedback.
- The 'winner' is the contestant who has the highest total at the end of the game. It is possible that a contestant can have a negative total earnings.
- While it is possible for either the student to win or the second contestant, the odds are stacked in the student's favour.
- Some choice is given (not scored) as to which question the student would like next and other times the next question is randomly selected.
- Regardless of the path chosen, a total of eight questions are asked (breakdown of the eight questions described above).

Chapter 1

Limits, Alternatives, and Choices

TEACHING GUIDE CONTENTS

CHAPTER 1 CONNECT CONTENT MATRIX

WHAT'S NEW IN CHAPTER 1

SUGGESTIONS FOR IMPLEMENTATION

LEARNING OBJECTIVES

OVERVIEW OF THE CHAPTER

COMMENTS AND TEACHING SUGGESTIONS

STUDENT STUMBLING BLOCKS

LECTURE OUTLINE

QUIZ

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

CONNECT CONTENT MATRIX

The Connect Content Matrix for the entire product can be found in the Instructor's Resources Page on Connect.

WHAT'S NEW IN CHAPTER 1

We have made a major push in this edition (16ce) to streamline the presentation to make it faster to read and easier for busy students to digest the key ideas and concepts.

To that end, this and all subsequent chapters have been edited to "cut out the fat." For instance, secondary and tertiary examples have in many cases been eliminated (but only if the primary example was sufficient on its own).

Space was saved by in some instances by eliminating entire LO sections or subsections within a given LO. But those deletions are relatively few. For the most part, our editorial process involved tightening up language (e.g., active voice sentences are usually shorter than passive voice sentences) and streamlining the presentation. So, if you do a side-by-side comparison of the 15th edition and the 16th edition, you will see a large number of small changes. That is by design.

Any changes in the main body of a chapter caused the author team to modify the end-of-chapter and ancillary content as appropriate. So, there are matching changes to the Summaries, Terms and Concepts, and Questions and Problems within the book itself as well as matching changes in our ancillary materials, including our PPT slides, test banks, and even this Teaching Guide.

The total number of chapters remains the same but the titles and topics of Chapters 4 and 5 have been heavily revised and rearranged. All other chapters retain their previous titles and topics.

We have also totally revised our graphs, figures, charts, and tables to ensure accessibility.

Chapter 1: Limits, Alternatives, and Choices

As with the rest of the book, Chapter 1 features edits to streamline the presentation. There are scores of these, but they do not for the most part affect content or the breadth of coverage. When they do, parallel changes were made to the end-of-chapter material.

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

Here are the more substantial *content* changes in Chapter 1:

- The Consider This (CT) boxed piece titled "Free for All" has been replaced with **a new CT titled, "Is Facebook Free?"**
- The CTs about "Fast Food Lines" and "The Economics of War" have been removed.
- The CT about celebrities skipping college has been updated**,** with Ariana Grande replacing Taylor Swift.
- There is a new CT of how COVID-19 will reduce both present and future output.
- The Last Word (LW) on "Pitfalls to Sound Economic Reasoning," has been replaced by a new Last Word that explains how Starbucks uses marginal analysis to make business decisions.
- There is a new Global Perspective on "Gross Capital Formation as a Percentage of National Income" in the section that deals with the PPF.

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

TEACHING GUIDE: SUGGESTIONS FOR IMPLEMENTATION

The purpose of this Teaching Guide is to support you in the delivery of your chosen curriculum in either a face-to-face or online classroom format. It also was created to help you address some of the **following challenges in higher education:**

- Addressing the inability to measure student comprehension prior to major assignments such as a midterm or project.
- Overcoming the inability to tailor your lecture to the topics that students find difficult.
- Increasing student engagement by providing opportunities for them to apply the knowledge gained in the classroom to real-world scenarios.
- Providing students with opportunities for self-reflection outside of classroom activities.
- Increasing students' critical-thinking and problem-solving skills.

You will learn that we created many different teaching resources you can use either before, during, or after class. Because of the quantity of options, the goal of this implementation guide is to provide an overview of how you might select the many teaching resources at your disposal.

So What Assets Can I Chose From?

Generally, a typical class session for any course comprises three touch points: before, during, and after class. For a face-to-face course, your class session would normally be the day you lecture to students. For an online course, the class session would be when you recorded the lecture or when the live lecture is streamed on the Web.

Our teaching resources fall into ten categories:

- **SmartBook 2.0** SmartBook 2.0 makes study time as productive and efficient as possible. Students move between reading and practice modes to learn the content within the chapter. As they progress, the adaptive engine identifies knowledge gaps and offers up content to reinforce areas of weakness. Clickpath in Connect: HOME > Add Assignment > LearnSmart
- **Connect® Exercises (Test Bank and End-of-Chapter)** End-of-chapter problems reinforce chapter content through a variety of question types including questions that make use of the graphing tool. Problems with algorithmic variations are also available.

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

Clickpath in Connect: HOME > Add Assignment > Question Bank > Chapter X > Exercises

- **Application-Based Exercises (ABAs)** New immersive real-life scenarios engage students and put them in the role of everyday economists. Students practice their economic thinking and problem-solving skills as they apply course concepts, and see the implications of their decisions as they go. Each activity is designed as a 15-minute experience, unless students eagerly replay for a better outcome.
  Clickpath in Connect: HOME > Add Assignment > Application-Based Activity
- **Economics Videos** The "Connect the Dots" video series takes important economic concepts and explains them in an engaging, relatable manner. Patrick Walsh walks students through examples that help contextualize concepts in ways that make them easier to understand and apply. Each includes a related assessment item to test student understanding.
  Clickpath in Connect: HOME > Add Assignment > Question Bank > Economics Videos
- **Interactive Graph Assignments** These are designed to help students visualize and interpret economic concepts, graphs, and real data. All graphs are accompanied by assignable assessment questions and feedback to guide students through the experience of learning to read and interpret graphs and data.
  Clickpath in Connect: HOME > Add Assignment > Question Bank > Interactive Graphs
- **Economics and Ethics Discussion Questions** Over 60 discussion questions that highlight the challenge of ethical decision making within the economic study of allocating resources. Set-up as multiple-choice questions without a correct answer, just an explanation to help spur discussion. All ethical dilemmas are wrapped around standard economic topics like price discrimination and scalping, the Edgeworth box and Pareto optimality, interest and usury outsourcing, environmentalism as a normal/luxury good, and more.
  Clickpath in Connect: HOME > Add Assignment > Question Bank > Economics and Ethics Discussion Questions

Assigning SmartBook 2.0 and Connect® Exercises

Connect® gives you a wide array of flexibility in making assignments and creating grading policies. You may choose to:

- Assign as many assignments as appropriate.
- Determine point values for each question/application exercise individually.
- Make available multiple attempts per assignment with options of accepting the highest score or averaging all the scores together.

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

- Deduct points for late submissions of assignments (percentage deduction per hour/day/week/so forth) or create hard deadlines.
- Show feedback on exercises/questions immediately or at your preference.
- Provide for study-attempts to allow for completion of the assignment after the due date without assigning a point value.

Some recommendations include:

- Before selecting the option for one attempt only, select unlimited or multiple attempts on the first few assignments to allow students a chance to learn and navigate the system.
- Provide a low point value for each question because multiple questions are usually assigned for each chapter. A good rule of thumb would be to make test bank questions worth 1 point each and Connect exercises like the end-of-chapter problems worth 5 to 10 points each because these require more time and thought.
- Select feedback to be displayed after the assignment due date in order to limit students from giving the correct answers to other students while the application exercise is still available.

So When Do I Assign Each Type of Teaching Resource?

Wouldn't it be wonderful if you could transition from simply assigning readings, lecturing, and testing to actually adapting your teaching to student needs? By utilizing the teaching resources outlined below during the three touch points, you can significantly impact students' learning and create a learning environment that is more engaging, involving, and rewarding. In other words, you can now tailor your classrooms to pinpoint and address critical challenges, thereby creating the greatest impact and assisting students develop higher-order thinking skills.

You can identify which of the other resources can be used with the Connect Content Matrix.

Before Class

The learning goals we have for students determine our assignments before, during, and after class. For example, you may want to focus on mastering content, applying content, or using content to solve problems. Alternatively, you may want to achieve all three goals.

A reading assignment—typically a chapter from the product in use—is a student's initial exposure to course content. Requiring students to complete a SmartBook 2.0 module prior to class or an online lecture allows you to gauge their comprehension of the material. Having a better sense *before* class of which concepts your students are "getting" and which ones they are not, allows you to more effectively and efficiently plan your time with them *during* class. To ascertain student competency, use the reporting function of SmartBook 2.0, where you can view general results of their performance.

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

Below is a screenshot of a general results report. In the sample report of student comprehension by topic, note the percent of questions answered correctly in the last column of the report.

Sample Report of Student Comprehension by Topic shows you what topics students are struggling with.

Self-study work
Number of assigned items: 73

Chapter section	Average time spent (hh:mm:ss)	Average questions per student correct / total	Correctness 0% 100%
Global Management Managing across Borders	0:05:27	55 / 73	75%
4.1 Globalization: The Collapse of Time & Distance	0:00:41	7 / 8	86%
4.2 You & International Management	0:00:29	5 / 6	82%
4.3 Why & How Companies Expand Internationally	0:01:04	11 / 14	76%
4.4 The World of Free Trade: Regional Economic Cooperation	0:01:35	16 / 21	78%
4.5 The Importance of Understanding Cultural Differences	0:01:36	16 / 24	67%

Additionally, Connect® exercises, such as Problems, Review Questions, Discussion Questions, and Test Banks offer students a second exposure to important sections of the chapter after their completion of a SmartBook 2.0 assignment.

During Class

The Teaching Guide offers a host of additional materials and experiential activities you can use to bring chapter content to life.

Guided Peer Instruction (GPI)

When using GPI, students do some basic preparation as homework—reading and tackling the easier problems at home—and then come to class to work out more difficult problems while you're there to guide them in their analysis. What we want them to do in class is to think beyond the basics in the textbook or in the lecture and learn to think critically and apply economic concepts.

In GPI:

- In-class questions are meant to be harder than the basic homework questions.
- We expect most students will get the questions wrong individually (30% – 50% correct).
- We expect most groups will get the questions right (75% – 85% correct).

Example question from biology:

> Think of a large oak tree. Where does most of the mass of the tree come from?
>
> A. The soil

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

B. The water

C. The atmosphere

D. Sunlight

The answer is not at all obvious. But if you think long enough, you will perhaps realize that the correct answer is c, the atmosphere. That's because when the tree engages in photosynthesis, it uses sunlight to break up CO2 molecules from the atmosphere. The carbon from those CO2 molecules ends up forming the large majority of the mass of the tree.

However, the answer isn't necessarily important. From the pedagogical point of view, the point of this question is not to assess student understanding but to create it. It has a non-obvious answer that students can't get from just memorizing the book. The answer requires students to build on what they know and apply it. It makes them stretch from rote memorization to application and insight.

Other In-Class Activities

If your goal is content mastery and you are utilizing SmartBook 2.0, you can plan class activities and lectures based on results from the general results report and the metacognitive skills report. This allows for a more tailored class period that enhances student engagement and more opportunities to resolve gaps in knowledge.

If your goal is to jointly engage your students while applying content from the text, you can select a self-assessment follow-up activity (all follow-up activities are found in the Teaching Guide). These assets are especially useful if you are "flipping" your classroom, wherein the class session is used for application and analysis of key concepts rather than lecture.

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

After Class

After the face-to-face class session, or online lecture, you can assign Connect® exercises as homework to further reinforce the material covered in the textbook and lecture. You may also want to assign a "Connect the Dots" video if you notice that students are struggling with a particular topic, even after class. To further gauge student comprehension, you can also assign a quiz or exam. The test banks in Connect® focus more on defining and explaining material, and the test banks focus more on application and analysis.

Finally, if you are looking to have students think critically to solve real-world problems, then you may want to utilize an application-based activity after class. Application-based activities are mini-simulations that allow students to make decisions and see their impact immediately. There are both theory-based questions that have right and wrong answers, and there are also branching questions that allow students to make ideal, sub-ideal, and incorrect decisions based on the theory they've learned. A student's particular path in the activity will depend on the decisions made on the branching questions. as Because they do not introduce new material, application-based activities should be utilized after a student has had at least one pass at the chapter content. Rather, they encourage students to apply, analyze, and evaluate material they already understand.

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

LEARNING OBJECTIVES

1.1 List the ten key concepts to retain for a lifetime.

1.2 Define economics and the features of the economic perspective.

1.3 Describe the role of economic theory in economics.

1.4 Distinguish microeconomics from macroeconomics and positive economics from normative economics.

1.5 Explain the individual's economic problem and how trade-offs, opportunity costs, and attainable combinations can be illustrated with budget lines.

1.6 List the categories of scarce resources and delineate the nature of society's economizing problem.

1.7 Apply production possibilities analysis.

1.8 Explain how economic growth and international trade increase consumption possibilities.

1.A1.1 (Appendix) Understand graphs, curves, and slopes as they relate to economics.

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

OVERVIEW OF CHAPTER 1

This chapter begins with a discussion of the meaning and importance of economics. In this first chapter, however, we will not plunge into problems and issues; instead we consider some important preliminaries. We first look at the economic perspective—how economists think about problems. Next, we examine the specific methods economists use to examine economic behaviour and the economy, including distinguishing between macroeconomics and microeconomics. We then look at the economizing problem from both an individual and societal perspective. For the individual we develop the budget line, for society the production possibilities model. In our discussion of production possibilities, the concepts of opportunity costs and increasing opportunity costs, unemployment, growth, and present versus future possibilities are all demonstrated.

The appendix to Chapter 1 provides an important introduction to graphical analysis. While this will be review material for most students, for some this may be new. Instructors are strongly urged to confirm that their students understand this section before proceeding. The software supplement can provide effective remedial help for those students who are not familiar with graphical analysis, or just need a refresher.

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

COMMENTS AND TEACHING SUGGESTIONS

1. This chapter and related classroom activities will set the tone for the rest of the course. The methods used in the initial class meetings set the expectations and attitudes of the students. Making dramatic changes later can be confusing and the outcome less successful than desired. Please refer to the preface for detailed suggestions. If you plan to make current events an integral part of the class, consider offering educational subscriptions to *The Globe and Mail*, or one of the weekly news or business publications such as *The Economist*.

2. On the level of personal decision-making, students might be asked to list all of the economic choices they had to make that day or that week. This impresses upon them that, as Alfred Marshall said in the 1890s, “economics is the study of man in the ordinary business of life.” To illustrate the rational basis of their decisions, students could analyze one or two of these choices in terms of the alternatives they gave up. What other choices did they have? What criteria were used to judge the alternatives? A discussion of how rational our decisions are might also follow, providing an opportunity to introduce problems such as imperfect information and short- versus long-term objectives.

3. There are many dimensions to the topic of “utility” that introductory students will benefit from contemplating. With these many dimensions comes the danger in taking students too deep too quickly. It is useful for students to understand that utility may be obtained both through material and nonmaterial means. Accordingly, it may be difficult to express how much one is willing to pay (or otherwise sacrifice) to obtain utility through a given activity.

When discussing rational behaviour, and seemingly irrational decisions, is may be useful to point out that for some people their utility is interdependent. You can have a bit of fun telling students that economists define love as “strongly interdependent utility functions.” The main point, of course, is that there are many situations where people obtain utility through seeing others having material and nonmaterial wants satisfied. Likewise, some gain utility from watching others suffer, even if it means that they are themselves worse off in material terms.

If a question arises about the measurement of utility, the distinction between cardinal and ordinal utility can be made, but there is little to be gained from an elaborate discussion. Students may find it interesting that Jeremy Bentham (whom they meet in Origin of the Idea 1.2) envisioned some sort of “util-o-meter,” a contraption that one might strap to the head to record brain waves in an attempt to measure utility from an activity. Even suggesting that one might use “utils” as a measure of satisfaction often amuses students and helps them better recall this topic.

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

4. As the text suggests, it may be useful to discuss several noneconomic examples to illustrate the importance of models or simplification—for example, explaining that a road map is a model or simplification of the real world. The amount of detail on any road map would be determined by the needs of the traveler, i.e., "I need to travel between Saskatoon and Sudbury as quickly as possible," versus, "I would like to visit some historical museums as I am traveling through Alberta.." Neither road map would have the details of the real world. Devoting some time and effort to this point can help students see the importance of using economic models to represent the real world. You may wish to use the example below.

Concept Illustration – Abstractions and Models

> *"What do you consider the largest map that would be really useful?"*
>
> *"About six inches to the mile."*
>
> *"About six inches!" exclaimed Mein Herr. "We very soon got six yards to the mile. And then came the grandest idea of all! We actually made a map of the country on a scale of a mile to a mile!"*
>
> *"Have you used it much?" I enquired.*
>
> *"It has never been spread out yet," said Mein Herr. "The farmers objected. They said it would cover the whole country and shut out the sunlight!"*

Lewis Carroll
Silvie and Bruno, 1889

In many ways, good economic models are like good maps. Both are abstractions that purposely leave out irrelevant facts and circumstances. Both are useful and practical *because* they simplify complex realities.

Maps not only help us understand geographical relationships but also serve as useful tools. A road map of Canada, for instance, helps us understand where Alberta is located relative to New Brunswick. It also is highly practical in helping us drive between British Columbia and Manitoba.

In much the same way, economic models are helpful and useful. For example, a model indicating how consumers respond to a change in a product's price helps us understand a significant facet of human behaviour. That model also is highly practical; among other things, it identifies the primary way a business can reduce an overstock of unsold goods.

The appropriate map or appropriate economic model is the simplest one that accomplishes a specific goal. Although we may need a highly detailed street map of Edmonton to find a specific residence there, we need only a general road map to drive between Edmonton and Calgary.

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

Similarly, we need a highly complex, detailed economic model to predict the economic effects of a general reduction of Canadian tariffs (taxes on imported goods) on the relative outputs of various Canadian industries. In contrast, a much simpler model will suffice to show how a reduced Canadian tariff on imported beef will affect the total consumption of beef in Canada.

You will discover many economic models in your study of economics. The trick is to use the right model for the right purpose. Think of these models as highly useful, highly practical "maps," which help us better understand elements of the highly complex economy.

5. Most students are all too familiar with the problem of scarcity. Although income and time are not resources in the way in which we define resources in economics, these are what are most scarce to students. Explain how making a budget is dealing with the problem of their limited financial resources and their virtually unlimited wants. Other examples can be how businesses choose between two products when allocating their limited resources and choose between two resources when allocating their limited revenues. Further discussion can bring in examples of allocating federal and/or state tax revenues, especially when state revenues compete with funding the state university.

6. To personalize the problem of opportunity cost, ask what else they could be doing during a specific economics class; what are their foregone alternatives? Why might it be more expensive for older students to attend the class than younger ones? Encourage students to find examples of opportunity cost in newspaper articles and magazines. Choice is a necessary part of life; every action has its costs and benefits. Identifying and quantifying these trade-offs is at the heart of economic analysis.

You may also want to use the following illustration to facilitate student understanding of opportunity cost.

Concept Illustration – Opportunity Cost

The concept of opportunity cost can be illustrated through the eyes of a small child. Suppose that a young girl named Amber receives a $30 gift certificate from her grandparents to be used at Toys4Me. The grandparents take the girl to the store, where she spots several toys she would like—all priced above $30. After gaining a sense of what is affordable, Amber narrows her focus to small stuffed animals ($10 each) and picture books ($5 each).

The grandparents tell Amber that she can buy three stuffed animals, six books, or some limited combinations of the two items. She initially settles on one stuffed animal at $10 and four picture books at $5 each. The grandparents assure her that this selection works; it will exactly use up the $30 certificate. Amber takes the goods to the checkout counter.

But while waiting to pay, she changes her mind. She decides she wants another stuffed animal because they are so cute. What should she do? The grandparents tell her to go pick out a second stuffed animal and then return two of her four books to the shelf. She

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

makes the exchange, ending up with two stuffed animals at $10 each and two picture books at $5 each.

From an adult's perspective, the second stuffed animal cost $10. But in the eyes of the child, *it cost two picture books*. To get the second stuffed animal, Amber had to give up two books. That sacrifice was the *opportunity cost* of her last-minute decision. Amber's way of looking at cost is one of the fundamental ideas in economics.

7. Current news articles can serve many purposes in a principles class. Most instructors assign a high priority to helping students apply the general principles of economics to the specific problems and decisions they make. Short essays, oral reports, class discussion and longer-term projects are all examples of how current news could be incorporated into the course. A term project focused on current issues such as health care, welfare reform, environmental problems, defense spending, or education can help students develop an appreciation of the problem of scarcity and the trade-offs that need to be considered when formulating public policy.

8. The problems of underdeveloped countries could also be used to illustrate the seriousness of choosing between capital goods and consumer goods. Focusing a project on the problems of a single developing country can be interesting. It would allow students to make many comparisons including the impact of differing economic systems, degree of government regulation, environmental quality standards, differences in resource availability, climate, educational levels, and the choice between consumer and capital goods.

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

STUDENT STUMBLING BLOCKS

1. Instructors cannot take for granted students' background knowledge of economics. Students generally have no idea about the magnitude of common economic measurements and, therefore, their reading of the news may be colored by this lack of knowledge. One teaching tip that has worked for others is to give students a pretest during the first week of class, in which simple questions are asked about the Canadian economy. For example, questions can be asked about the size of population and labour force, unemployment and inflation rates, GDP, federal budget, deficits and debt. You will find wildly different answers to these questions with most far away from "ball park" figures. This exercise accomplishes two things. First, it lets students know that they have a lot to learn about "everyday" news items. Second, the correct answers can give them some early perspective on news events as they relate to the course. As the course progresses, don't forget to reinforce these facts by reminding students of them.

2. The specialized definitions in economics sometimes frustrate students, especially when they are familiar with a term in a different context. You may wish to use the following example to help students appreciate that specialized definitions are common in our everyday lives.

Concept Illustration – Specialized Definitions

> *"Then you should say what you mean," the March Hare went on.*
>
> *"I do," Alice hastily replied; "at least I mean what I say—that's the same thing you know."*
>
> *"Not the same thing a bit!" said the Hatter.*
>
> *"Why, you might just as well say that 'I see what I eat' is the same thing as 'I eat what I see!'"*

Lewis Carroll,
Alice in Wonderland, 1865

In an indirect way, the specialized terms used in games such as soccer, baseball, bowling, and so forth provide insights on the study of economics. Consider the game of pool, for example. The following terms are used in pool but have slightly or totally different meanings in everyday language: "pool," "cue," " kiss," "bank," "bridge," "combination," "break," "lag," "run," "rack," "scratch," "chalk," and "rail." Economics, too, uses terms that have different meanings than in everyday usage. In economics "labour" usually means all productive effort, not simply blue-collar workers; "capital" means human-made productive resources, not money used to buy resources. Also, "investment" means spending to pay for production and accumulation of capital goods,

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

not purchases of stocks and bonds; “public good” means goods that have special characteristics, not the good of society; and so forth.

Learning to communicate in the game of pool (or any other game) requires learning the meaning of specialized terms. It’s the same with economics! It is not enough to “mean what you say,” in economics. To communicate effectively (and to do well on exams!) you must “say what you mean,” using the precise terms of the discipline.

3. Principles of economics students are often frustrated by the apparent lack of precision and definitive answers in the discipline. Economists establish a framework of rational decision-making based on maximizing utility, only to have that utility be immeasurable, or decision outcomes to be less than optimal because of imperfect information or seemingly irrational behaviour. It is important to help students understand that, among other things, they are gaining more of an analytical toolkit than a set of hard and fast rules or immutable natural laws. To help students appreciate this, it is useful to appeal back to the road map illustration. Using a road map, one can find the shortest (and presumably fastest) route from one point to another. Even if someone has driven a route many times, there are factors such as traffic, weather, and road construction that may cause the otherwise quickest route to be less than ideal for that day’s travel. Maps, like economic models, are often effective at telling people what they need to know. They are, however, limited in their effectiveness by factors beyond view.

4. In the discussion of marginal analysis, students often bring up examples that include “sunk” costs. For example, if you ask students why they came to class, many will answer that they paid tuition and imply that they would somehow lose that money if they didn’t attend. If probed further, however, students will acknowledge that the college is unlikely to refund their money for any missed classes. That doesn’t mean there wouldn’t be future expenditures (paying tuition later to retake a failed class). It also doesn’t mean that there aren’t some psychological benefits to “getting what you paid for,” but many students will erroneously identify that tuition payment as a marginal cost of attending a given day of class. While your intention may be to discuss sunk costs in a later chapter, student questions and discussion may require you to be prepared to introduce the concept earlier.

5. The concept of “full employment” is potentially problematic, particularly for those courses that will eventually cover macroeconomics. The use of the term in this chapter refers to the use of all available resources, human and non-human. In macroeconomics the concept is used to describe general conditions in labour markets and the economy as a whole, but is usually focused on the economy’s use of its human resources. Even then it is recognized that under conditions of full employment there is unemployed labour. There is also the potential for confusion as the concept applies to the land resource. Fully employed deposits of coal or petroleum do not imply exhaustion of those resources. It is more a question of whether there is an adequate amount of these non-human resources available to sustain full employment in labour markets. A full discussion of this is probably not appropriate with students at this point, but you may find it useful to emphasize here that the concept is most often applied to the human

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

resources. Then, when the topic arises again (for those covering macroeconomics), students will be less likely to feel that you are changing definitions on them.

6. The production possibilities curve simplifies many concepts for students who don't have "graph anxiety." However, for those who are uncomfortable with graphs, this model may confuse rather than simplify. Computerized tutorials will be especially helpful for these students.

7. Some topics may elicit emotional and/or politically charged responses from students. While one must be sensitive, especially regarding those directly and negatively impacted by those events, it presents an opportunity to demonstrate how economists attempt to detach their emotional and political biases to achieve a more objective economic analysis. It is also an opportunity to point out that the usual role of the economist is to tell us what choices are available, not what choices should be made.

8. The instructor could treat the appendix on graphical analysis as a supplement for those students who have weak backgrounds in reading or constructing simple graphs. There is often a wide disparity among student abilities here. Instructors may wish to have a remedial session and special assignments for students deficient in graphing skills. Comparing graphs to maps seems to help students who have "graph anxiety." Instructors may also administer a math assessment on the basic math skills necessary to succeed in the course early in the course term.

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

LECTURE OUTLINE

As opposed to providing a traditional outline, the author team would like to direct instructors to the McConnell 16e PowerPoints to serve as chapter outlines. The chapter PowerPoints offer the most organized outline of the chapter and can be downloaded from the Instructor's Resource page in Connect. Instructors can use their connect username and password to access these resources.

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

QUIZ

The following questions are unique to this Teaching Guide and cannot be found in Connect. They are included for instructors who want to provide in-class quizzes or otherwise have some chapter-aligned content available outside of Connect. Many additional auto-graded problems can be found in Connect and can be sorted by difficulty, learning objective, and other criteria.

1. Economics is a social science concerned with:
   A. the best use of scarce resources to achieve the maximum satisfaction of economic wants.
   B. increasing the level of productive resources so there is a minimum level of income.
   C. increasing the level of productive resources so there is maximum output in society.
   D. the best use of scarce resources paid for at the minimum level of cost to consumers and businesses.

   Answer: A

2. A person should consume more of something when its marginal:
   A. benefit exceeds its marginal cost.
   B. cost exceeds its marginal benefit.
   C. cost equals its marginal benefit.
   D. benefit is still positive.

   Answer: A

3. The process of developing hypotheses, testing them against facts, and using the results to construct theories is called:
   A. Opportunity cost calculation
   B. Microeconomics
   C. Marginal analysis
   D. The scientific method

   Answer: D

4. Which is an illustration of a microeconomic question?
   A. What is the current national rate of unemployment?
   B. Is the economy experiencing a decline in the rate of inflation?
   C. Will a new type of television set increase the number of buyers?
   D. Is the production of goods and services in the economy greater this year than last year?

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

Answer: C

5. A schedule or curve that shows the various combinations of two products a consumer can purchase with a specific amount of money income is:
   A. A trade-off
   B. A budget line
   C. A tangent point
   D. An optimal output

   Answer: B

6. Which of the following is real capital?
   A. a pair of stockings
   B. a construction crane
   C. a savings account
   D. a share of Shopify stock

   Answer: B

7. A point inside a production possibilities curve best illustrates:
   A. unemployment.
   B. the efficient use of resources.
   C. the use of best-available technology.
   D. unlimited wants.

   Answer: A

8. A normative statement is one that:
   A. is based on the law of averages.
   B. applies only to microeconomics.
   C. applies only to macroeconomics.
   D. is based on value judgments.

   Answer: D

9. The problems of aggregate inflation and unemployment are:
   A. major topics of macroeconomics.
   B. not relevant to the Canadian economy.
   C. major topics of microeconomics.
   D. peculiar to command economies.

   Answer: A

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual

10. On a production possibilities curve, the single optimal or best combination of output for any society:
    A. Is at a point near the top of the curve
    B. Is at the precise midpoint of the curve
    C. Is at a point near the bottom of the curve
    D. Depends upon the preferences of society

    Answer: D

Copyright 2022 © McGraw Hill. All Rights Reserved.

Macroeconomics (Canadian) 16th edition McConnell Solutions Manual