

## ANSWERS

## A BRAIN TEASER

1. The most economical (profit-maximizing) quantity of frames to produce is 4 frames. This is because the marginal benefit of producing frames (the revenue per unit—equal to the price per unit of \$250)—exceeds the marginal (extra) cost of producing frames through the first 4 frames produced. The 5th frame should not be produced because the marginal benefit (the price received) is less than the marginal (extra) cost of production. You would be adding more to your costs than to your revenues and thereby reducing your profits. Your profit would total \$700 per week.

(Q)	Price (P) Marginal Benefit	Total Cost (TC)	Marginal Cost	Total Revenue (TR=PQ)	Profit (TR-TC)
0	\$250	\$0	—	\$0	\$0
1	\$250	\$25	\$25	\$250	\$225
2	\$250	\$75	\$50	\$500	\$425
3	\$250	\$150	\$75	\$750	\$600
4	\$250	\$300	\$150	\$1000	\$700
5	\$250	\$560	\$260	\$1250	\$690

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## POTENTIAL ESSAY QUESTIONS

*The following are annotated answers. They indicate the general idea behind the answer.*

- Theories are practical because they are generalizations based on real world observations or facts. They enable us to predict and to explain real-world economic behavior. Because they are generalizations, they enable us to avoid unnecessary details or facts. The drawback, however, is that because they are generalizations, at times, there will be exceptions to the prediction we would generally expect to observe.  
Facts, on the other hand, do not always speak for themselves. One can often be overwhelmed by a large set of data or facts. Not until one systematically arranges, interprets and generalizes upon facts, tying them together, and distilling out a theory (general statement) related to those facts, do they take on any real meaning. In short, theory and facts are inseparable in the scientific process because theory gives meaning to facts and facts check the validity of theory.
- Canada is still faced with scarcity because we are unable to have as much as we would like to have. Our resources (as vast as they are) are still scarce relative to the amount of goods and services we would like to have (indeed, our wants appear to be unlimited).
- Economics is a methodology, or an approach to how we think about the world. It does not come to us equipped with a whole set of solutions to complex real-world problems. However, it may help shed some light on the complexities of real world issues helping us to find solutions.
- No, not necessarily. For example, if one farmer has a "bumper-crop" year, an unusually large harvest, he will be better off. But, if all farmers experience the same thing, then the increased supply of the crop made available in the market will drive its price down and all farmers will be worse off.

12. a As discussed on pages 9 and 10 of the text, if there are significantly more of one gender than another, dates with that group must be rationed out among the other group. Economic forces will be pushing for the group in excess quantity supplied (in this case women) to pay. Economic forces may be pushing in that direction even though historical forces may push us in the opposite direction. Thus, even if males pay because of social forces, economic forces will be pushing for females to pay.
13. c Laws are legal forces.
14. a As discussed on pages 13 and 14, macroeconomics is concerned with inflation, unemployment, business cycles and growth. Microeconomics is the study of individuals and individual markets.
15. c As discussed on pages 13 and 14, macroeconomics is concerned with inflation, unemployment, business cycles and growth. Microeconomics is the study of individuals. The distribution of income is a microeconomic topic because it is concerned with the distribution of income among individuals.
16. b As discussed on pages 15 and 16, this could be either a normative or a science-of-economics statement, depending on whether there is an implicit "given the way the real-world economy operates to best achieve the growth rate you desire." Since these qualifiers are not there, "normative" is the preferable answer.
17. a As discussed on page 15 this is a positive statement. It is a statement about *what is*, not about what should be.
- A1. a As discussed in Appendix A, page 22 and 23, a point represents the corresponding numbers on the horizontal and vertical number lines.
- A2. c As discussed on pages 22 to 23 of Appendix A, the slope of a line is defined as rise over run. Since the rise is -2 and the run is 4, the slope of the above line is minus 1/2.

- A3. b As discussed on page 23 of Appendix A, at the maximum and minimum points of a curve the slope is zero.
- A4. c As discussed in Appendix A, page 22, the slope is defined as rise over run. Line C has the largest rise for a given run so c is the answer. Even though, visually, line A seems to have the same slope as line C, it has a different coordinate system. Line A has a slope of 1 whereas line B has a slope of 1/4. Always be careful about checking coordinate systems when visually interpreting a graph.

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### SHORT-ANSWER QUESTIONS

1. Economics is the study of how individuals, firms, and government make optimal choices from among a set of alternatives when facing scarce resources. (4)
2. If the marginal benefits of doing something exceed the marginal costs, do it. If the marginal costs of doing something exceed the marginal benefits, don't do it. (6)
3. Opportunity cost is the benefit forgone by undertaking an activity. It is the benefit forgone of the next best alternative to the activity you have chosen. Otherwise stated, it is what must be given up in order to obtain something else. (7)
4. Opportunity cost is the basis of cost/benefit economic reasoning. In economic reasoning, opportunity cost is less than the benefit of what you have chosen. (7)
5. Scarcity occurs when there are not enough goods available to satisfy individuals' desires. (8)
6. An economic force is the necessary reaction to scarcity. All scarce goods must be rationed in some way. If an economic force is allowed to work through the market, that economic force becomes a market force. The invisible hand is the price mechanism, the rise and fall of prices that guides our actions in a market. Social and political forces can keep economic forces from becoming market forces. (8-9)