ECONOMICS

Principles and Applications

by

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ECONOMICS: Principles and Applications, 4e
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Chapter 1

What is Economics ?

Overview

- What is economics?
  - ✔ Definition, scarcity, and choice
  - ✔ The world of economics
    - Micro vs. Macro
    - Positive vs. Normative
  - ✔ Why and how to study economics
  - ✔ The methods of economics
- Math review

Economics, Scarcity, and Choice

- Economics
  - Study of choice under conditions of scarcity
- Scarcity
  - Situation in which the amount of something available is insufficient to satisfy the desire for it

Scarcity and Individual Choice

- Unlimited variety of scarcities, based on two basic limitations:

1. Scarce time
   - Limited number of hours in each day to satisfy our desires
2. Scarce spending power
   - Cannot afford to buy more of the things we want

Scarcity and Individual Choice

- Limitations force each of us to make choices
- Economists study
  - Choices
  - Consequences of those choices
  - Indirect effects of individual choice on our society

Scarcity and Social Choice

- Society faces a scarcity of resources
- Categories of resources:
  - Labor
  - Capital
    - Human capital
    - Capital stock
  - Land/natural resources
  - Entrepreneurship

Scarcity and Economics

- Problems studied in economics: the scarcity of resources—and the choices it forces us to make
  - Households – have limited income to allocate among goods and services
  - Firms – production is limited by costs of production
  - Government agencies – the budget is limited, so goals must be carefully chosen

Scarcity and Economics

- Economists study the decisions made by households, firms, and governments to
  - Explain how our economic system operates
  - Forecast the future of our economy,
  - Suggest ways to make that future even better

Microeconomics

- Micro comes from the Greek word *mikros,* meaning “small”
- Studies the behavior of *individual* households, firms, and governments
  - Choices they make
  - Interaction in specific markets
- Focuses on individual parts of an economy

Macroeconomics

- Macro comes from the Greek word *makros*, meaning “large”
- Studies the behavior of the overall economy
- Focuses on big picture and ignores fine details

Positive and Normative Economics

- Positive economics: *how* the economy works
  - Can be true or false
  - Can be tested by looking at the facts
- Normative economics: what *should be*
  - Value judgments, identify problems, and prescribe solutions
  - Cannot be proved or disproved by the facts alone

Why Economists Disagree

- The difference of opinion may be positive in nature
  - Facts are being disputed
- The disagreement can be normative
  - Facts are not being disputed
- When economists have different values, they may arrive to different conclusions
- Disagreement - over goals and values

Why Study Economics

- To understand the world better
  - Global events and personal phenomena
- To achieve social change
  - Understand the origins of social problems
  - Design more effective solutions

Why Study Economics

- To help prepare for other careers
  - A wide range of careers deal with economic issues on many levels
- To become an economist
  - Develop a body of knowledge that could lead you to become an economist in the future

The Methods of Economics

- Use economic models to develop economic theories
- Economic models are built with words, diagrams, and mathematical statements
- Economic models
  - Abstract representation of reality
  - Should be as simple as possible to accomplish its purpose

Economic Models: Assumptions and Conclusions

- Two types of assumptions:
  - Simplifying assumptions
    - Essential features can stand out more clearly
  - Critical assumptions
    - Affect the conclusions of a model in important ways
    - If critical assumptions are wrong, the model will be wrong

The Three Step Process

- Economists follow the same *three-step process* to analyze almost any economic problem:
  - The first two steps explain how economists *build* an economic model
  - The last step explains how they *use* the model.

Math, Jargon, and Other Concerns…

- Economic jargon
  - Special words that allow economists to more precisely express themselves
- Math
  - High school level algebra and geometry
- We will covers some of the basic math concepts that you will need tomorrow

How to Study Economics

- Economics must be studied actively, not passively
- Active study
  - Reproduce what you have learned
  - List the steps in each logical argument
  - Retrace the cause-and-effect steps
  - Draw the graphs
  - Basic principles
    - relate to what you are learning

Math Review

- Tables and graphs
  - Tables
  - Straight-line graphs
  - Curved lines
- Linear equations
- Lines and curves shift
- Shifts vs. movements along a line

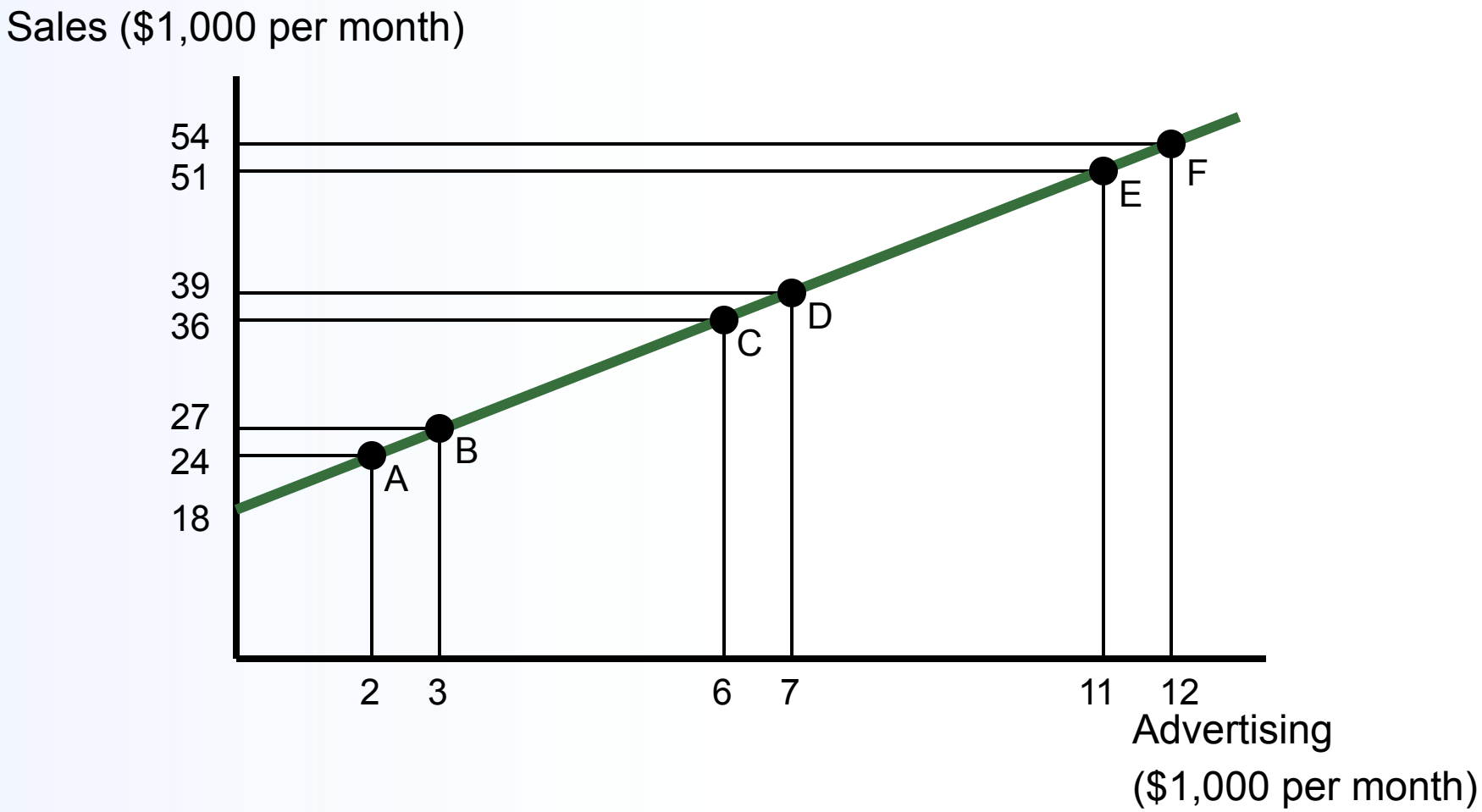
Tables and Graphs

- **TABLE A.1** Advertising and Sales at Len & Harry's

Advertising Expenditures ($1,000 per Month)	Sales ($1,000 per Month)
2	24
3	27
6	36
7	39
11	51
12	54

Straight-line Graphs

- **FIGURE A.1** A Graph of Advertising and Sales



Straight-line Graphs

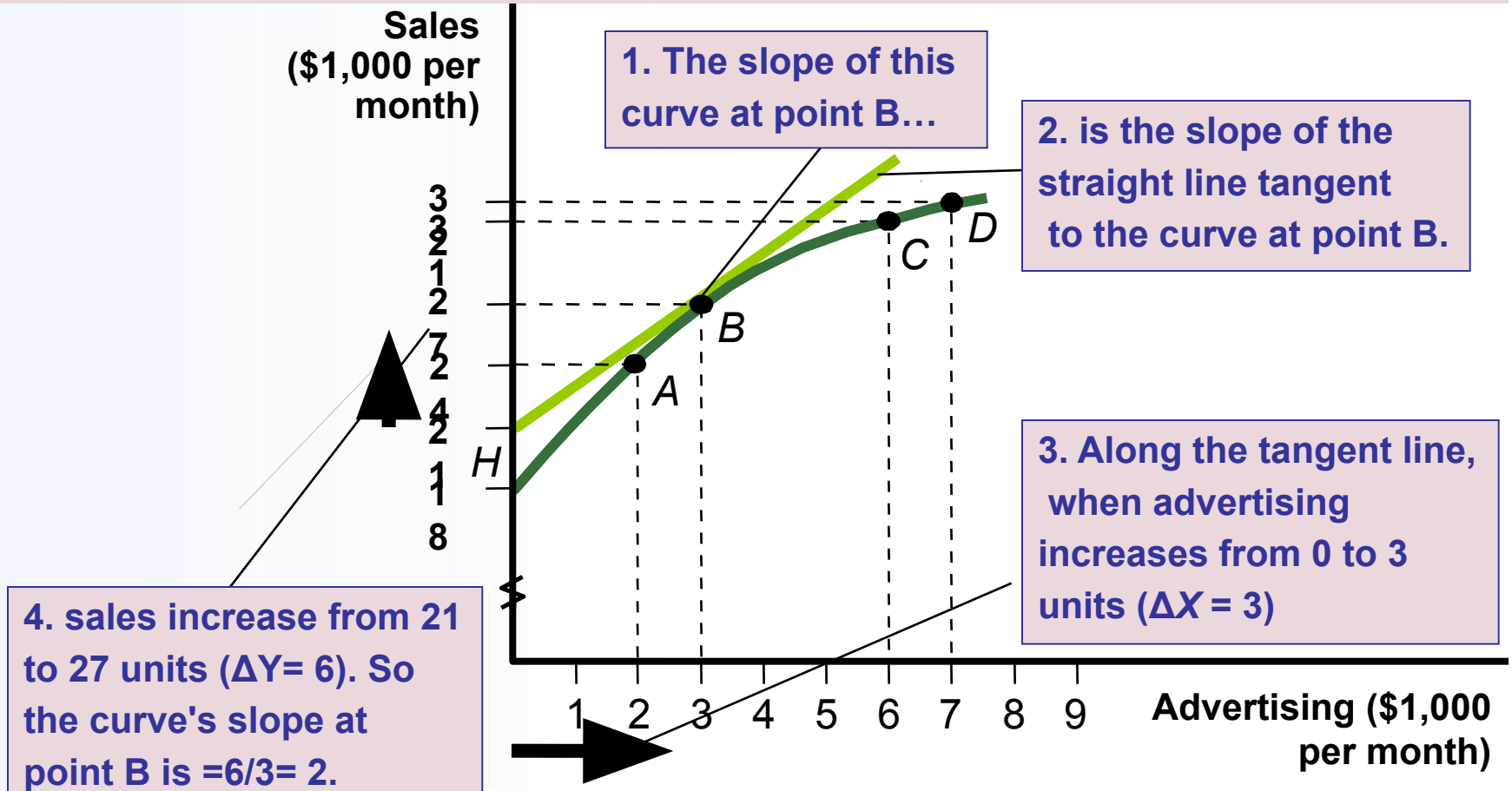
- Slope of a straight line =

Change in vertical variable / Change in horizontal variable

$$= \frac{\Delta Y}{\Delta X}$$

Curved Lines

- **FIGURE A.2** Measuring the Slope of a Curve



Linear Equations

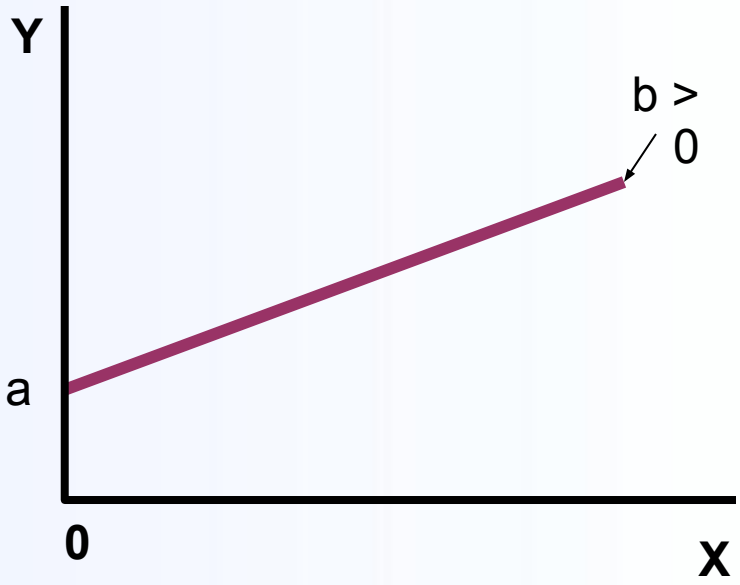
- $Y = a+bX$
- *a*: vertical intercept
- *b*: slope
- Exercise: what is the linear equation for advertisement example in Figure A.1?
- $Y = 18+3X$

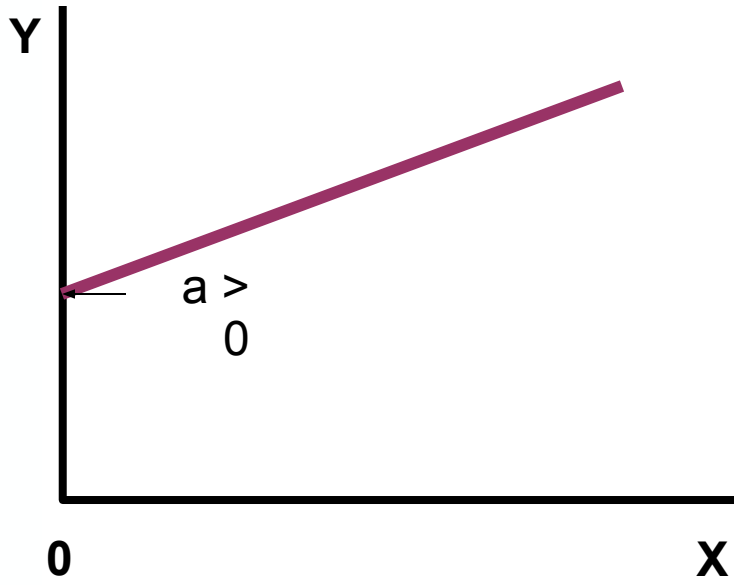
Linear Equations

- Remember *: Y= 18+3X*
- For example, how much expenses are necessary to secure a sale $39,000?
- *Y* = $39 now
- $39 = 18 + 3X
- X = (39 – 18)/3 = 7

Linear Equations

FIGURE A.3 Straight Lines with Different Slopes and Vertical Intercepts





Linear Equations

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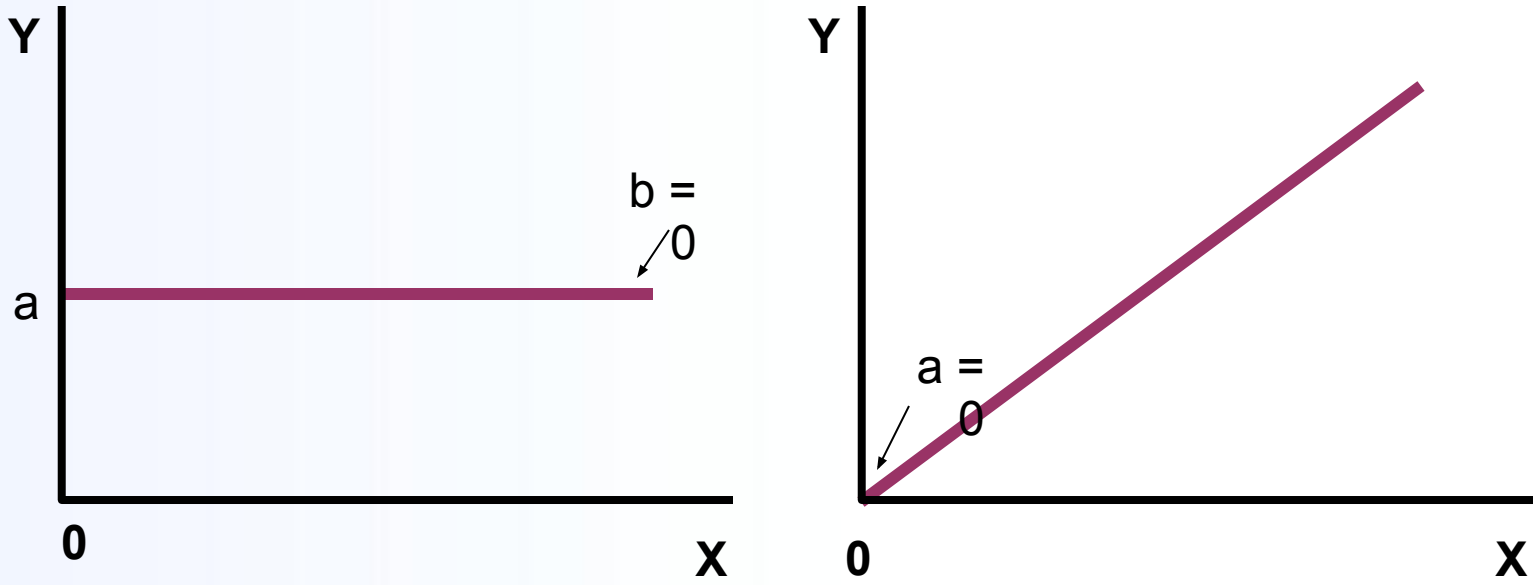

Linear Equations

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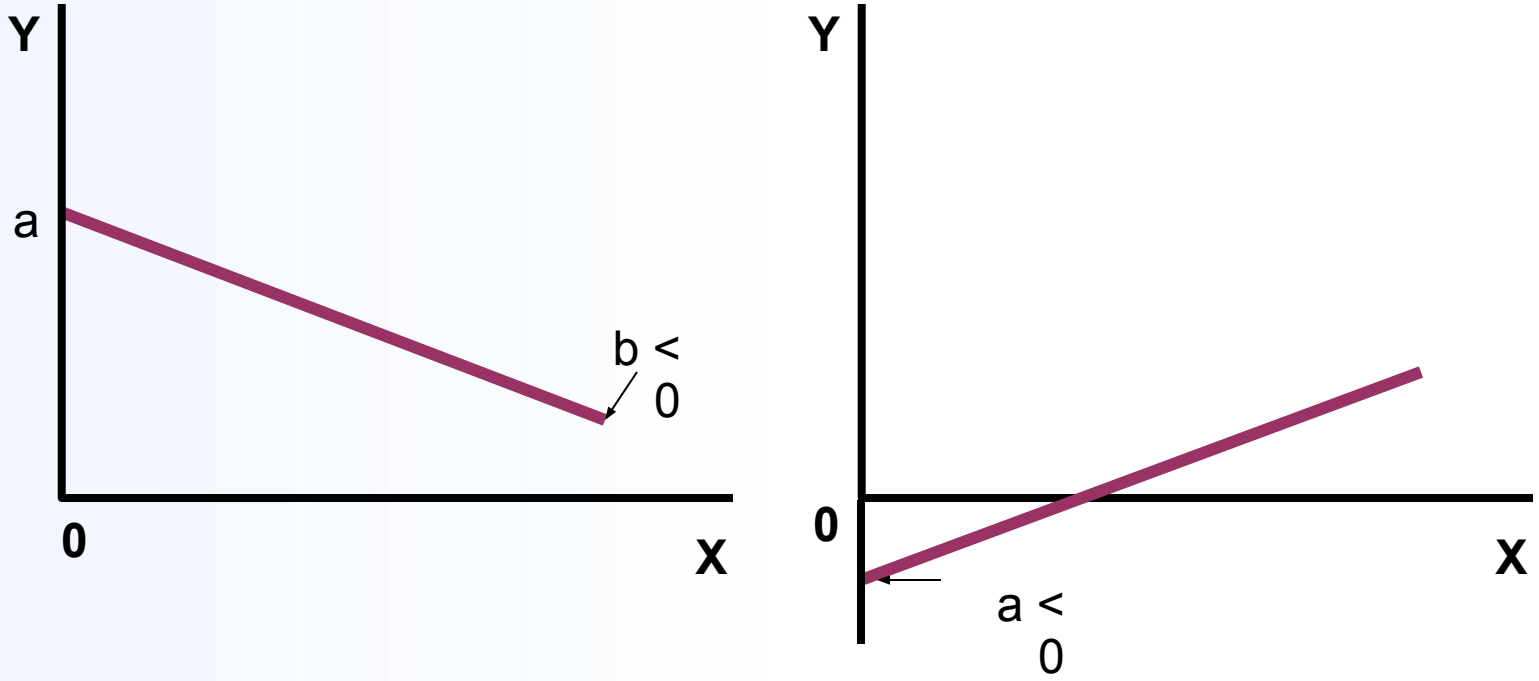
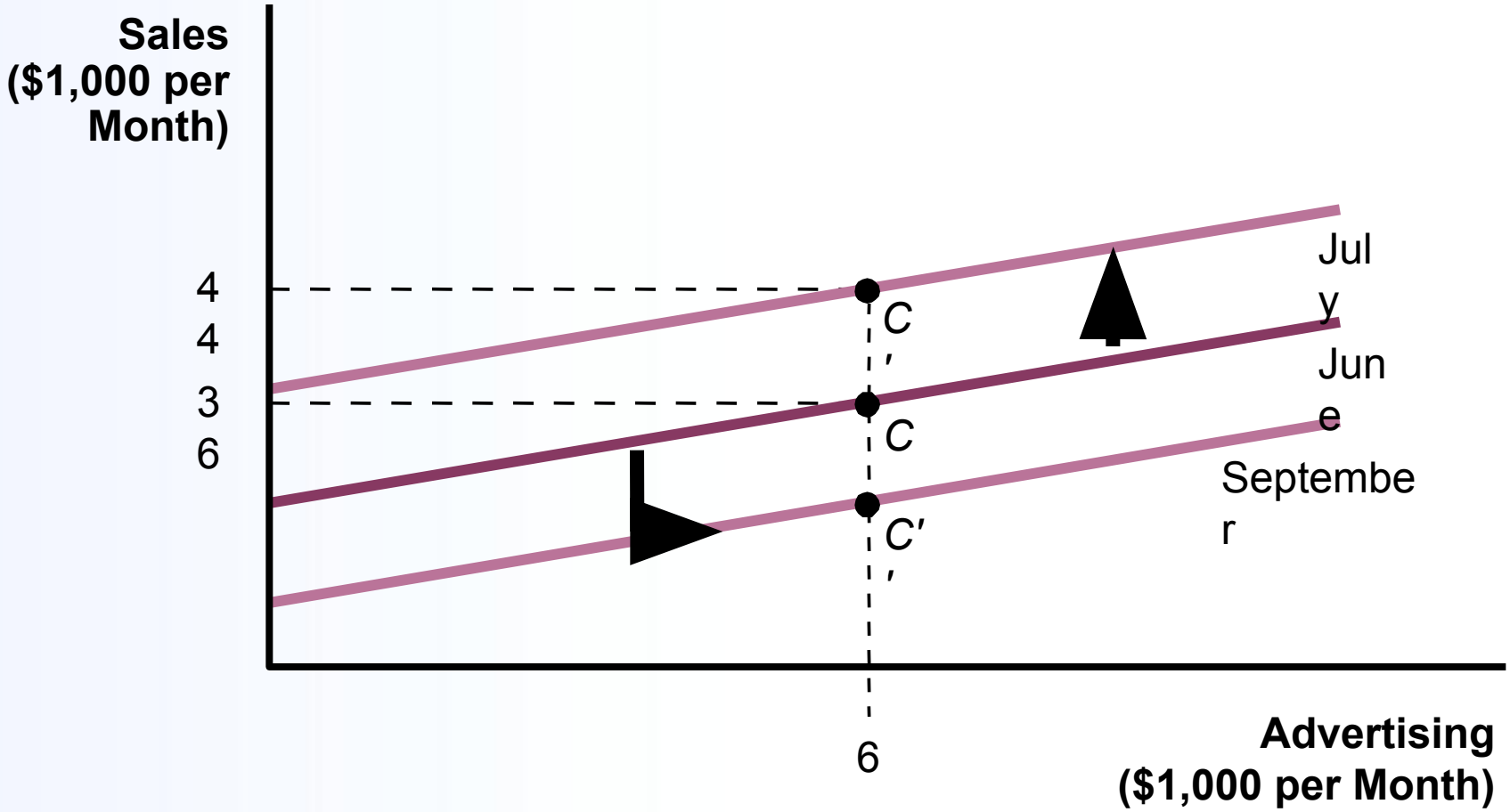


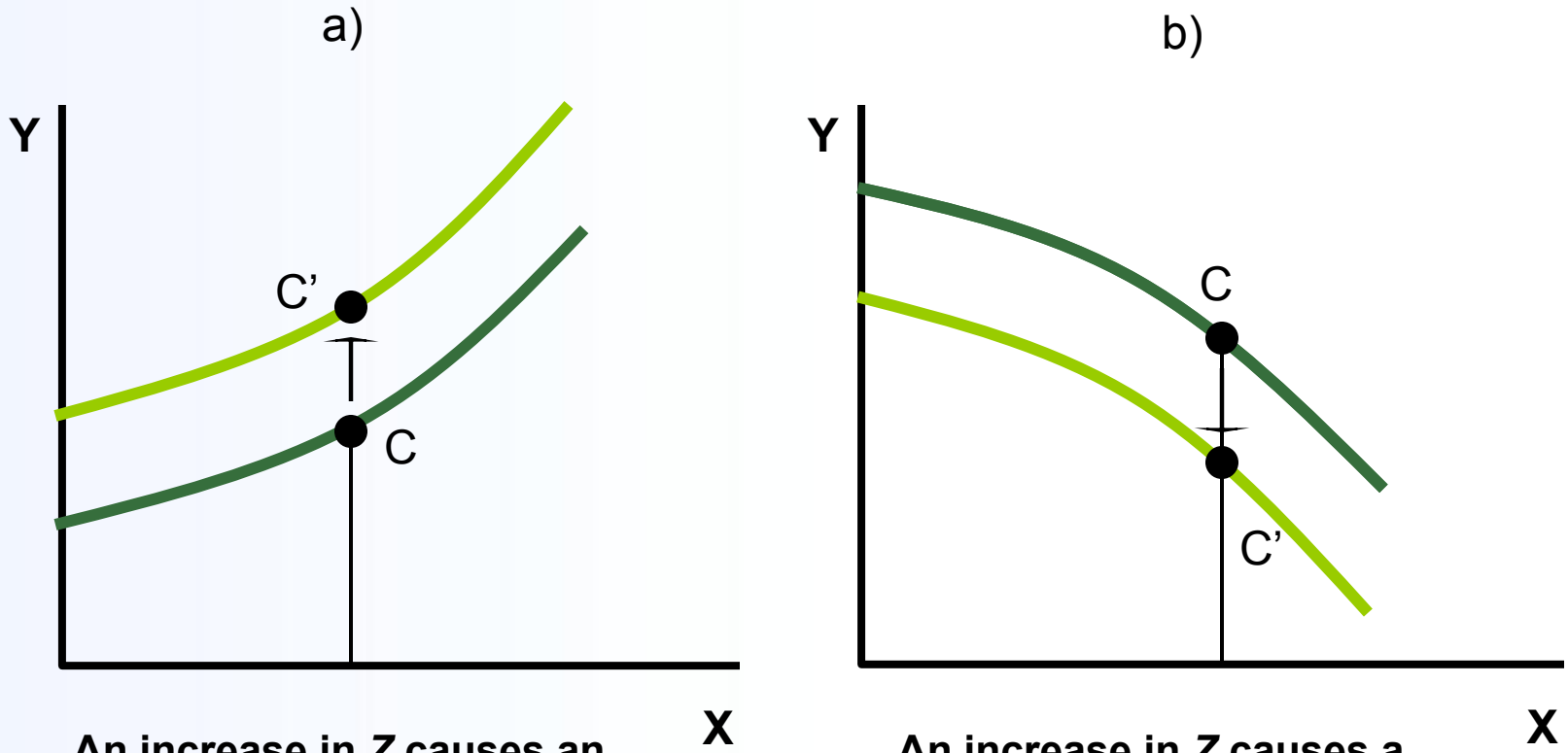
Line Shift

- **FIGURE A.4** Shifts in the Graph of Advertising and Sales



Curves Shift

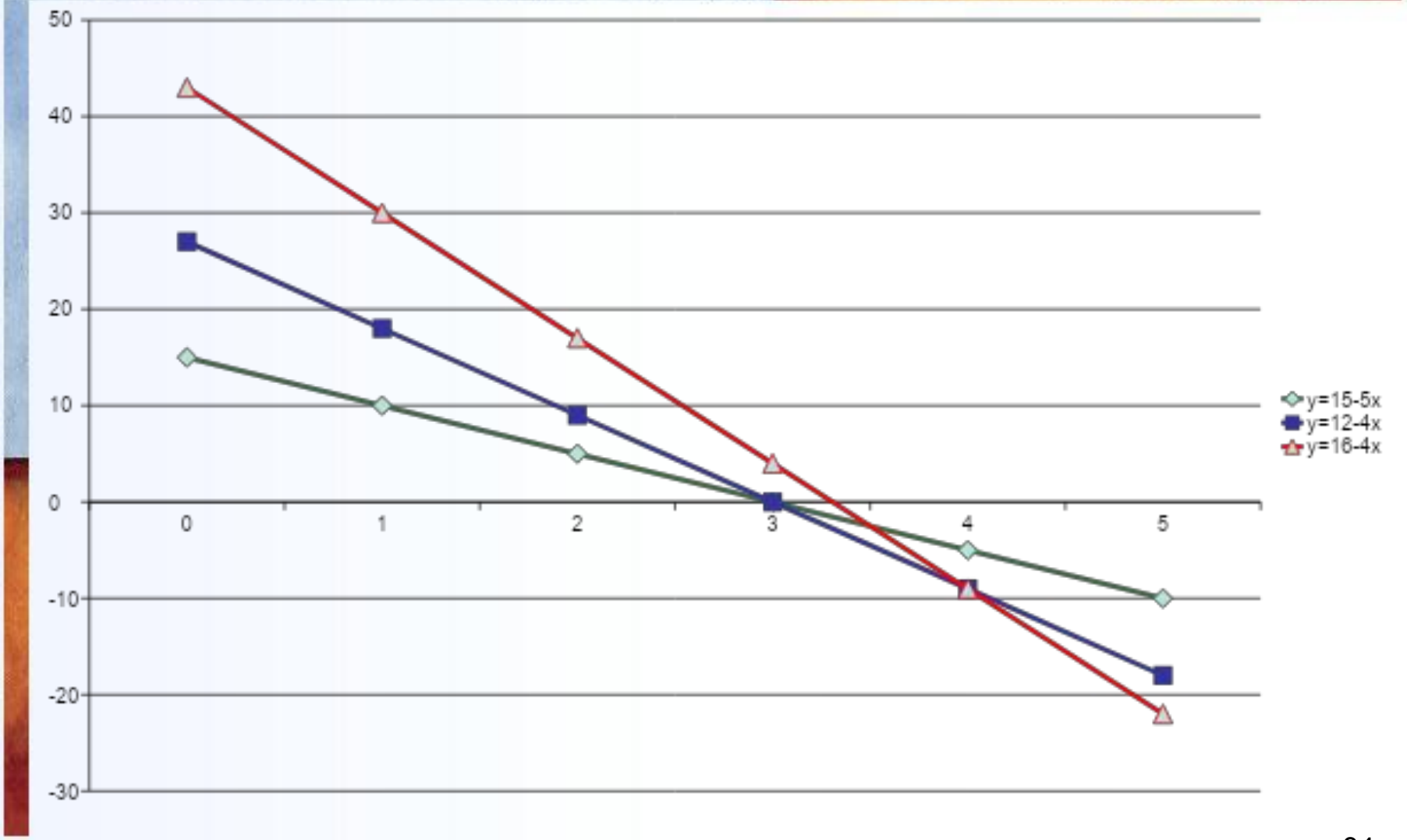
- **FIGURE A.5** Shifts of Curved Lines



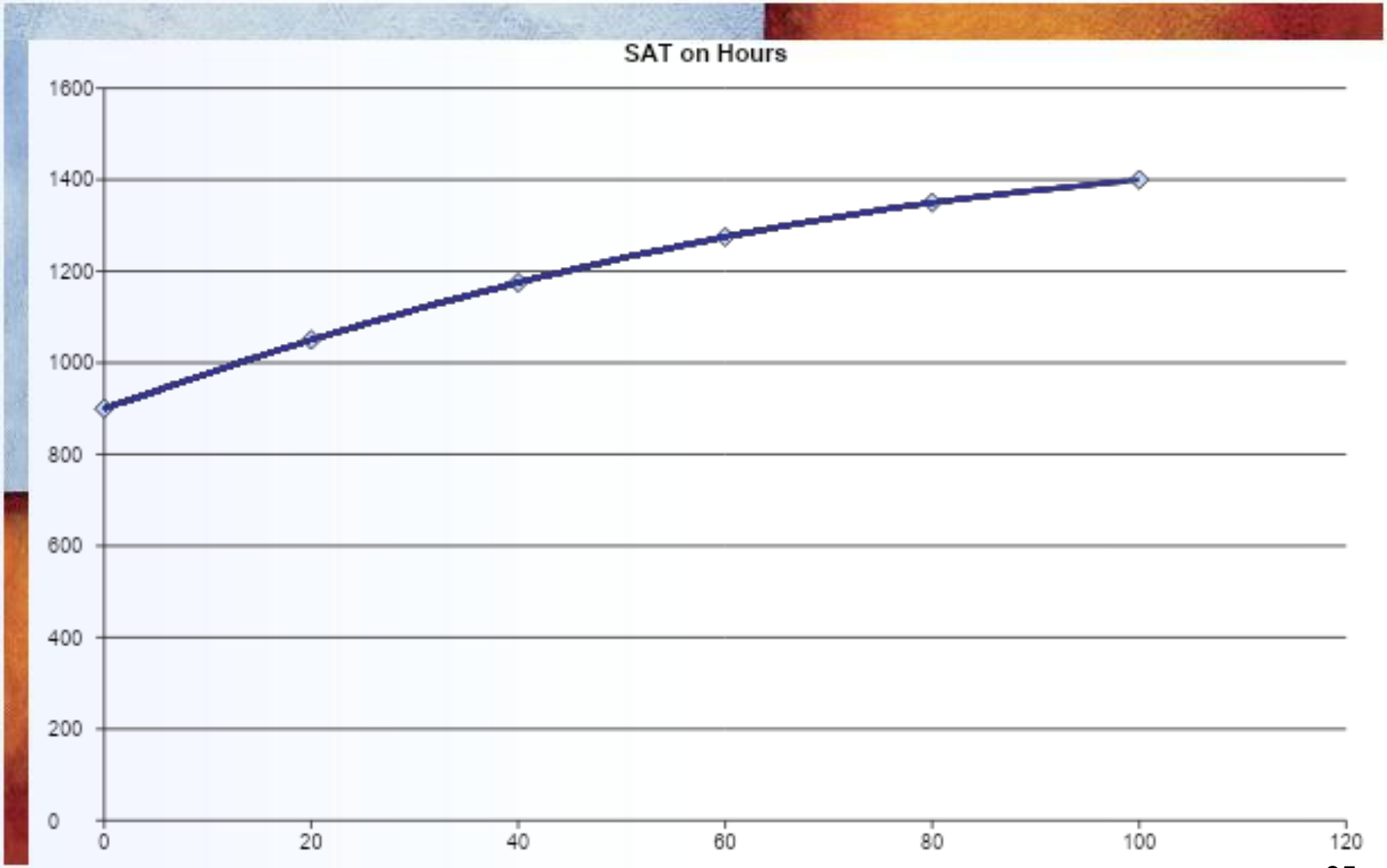
Shifts vs. Movements Along a Line

- Suppose Y is the dependent variable, which is measured on one of the axis. If the independent variable *measured on the other axis changes*, we *move along* the line.
- But if *any other* independent variable changes, the *entire line shirts*.

Practice Question 1



Practice Question 2



Practice Question 3